EDUCATION
DEPARTMENT

# A MANUAL

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## Containing the Graded Course of Study for the Elementary Schools of West Virginia.

PREPARED BY THE STATE BOARD OF EDUCATION
AND ISSUED BY THE

DEPARTMENT OF FREE SCHOOLS
M. P. SHAWKEY, STATE SUPERINTENDENT.

1912

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—FOR THE—

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—OF—

# WEST VIRGINIA

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waste in teaching spelling as a distinct and separate subject. The child should learn to spell in connection with other subjects. In language and written composition and written work of all kinds the child should learn to spell. Only occasionally and with care should words be singled out, studied, and spelled in lists. When the child begins the systematic study of history then common school geography as a distinct subject should end, and it should be studied in the future in connection with history and other subjects. State history should not be taught as a distinct subject, but in connection with United States history, civics, and the geography of West Virginia. It is very doubtful whether civics should have a distinct place in the daily program. It can be taught more successfully in connection with other subjects. Book-keeping in the elementary schools should be taught in connection with arithmetic.

## OUTLINE OF STUDIES.

| | |
|---|---|
| First Year | Reading (History and Literature.) |
| | Nature Study. |
| | Drawing and Construction Work. |
| | Motion Songs and Games. |
| | Writing. |
| Second Year | Reading (History and Literature.) |
| | Nature Study. |
| | Drawing and Construction Work. |
| | Motion Songs and Games. |
| | Numbers. |
| | Writing. |
| Third Year | Reading (History and Literature.) |
| | Nature Study. |
| | Drawing and Construction Work. |
| | Numbers. |
| | Language. |
| | Writing. |
| Fourth Year | Reading (History and Literature.) |
| | Nature Study and Hygiene. |
| | Arithmetic. |
| | Language. |
| | Geography. |
| | Spelling. |
| | Writing. |

| | |
|---|---|
| Fifth Year | Reading and Literature. |
| | Nature Study and Hygiene. |
| | Arithmetic. |
| | Language. |
| | Geography. |
| | History. |
| | Spelling. |
| | Writing. |
| Sixth Year | Literature. |
| | Nature Study and Hygiene. |
| | Arithmetic. |
| | Language. |
| | History. |
| | Spelling. |
| | Writing. |
| Seventh Year | Literature. |
| | Agriculture. |
| | Arithmetic and Book-keeping. |
| | Language and Grammar. |
| | Geography. |
| | History. |
| | Spelling. |
| | Writing. |
| Eighth Year | Literature. |
| | Agriculture. |
| | Arithmetic and Book-keeping. |
| | Language and Grammar. |
| | History. |
| | Civics. |
| | Physiology and Hygiene. |
| | Writing. |

## RURAL SCHOOL EQUIPMENT.

We will assume that your school has ample grounds, a good house with outbuildings, pure drinking water within easy reach, suitable desks for the pupils and a desk and a chair for the teacher, and that it has suitable means of heating and ventilating the room, that fuel, chalk, erasers and brooms are furnished. This list completes what boards are accustomed to think necessary equipment for a school. Some schools do not fare even so well as this. But

granted this much, what can the teacher do towards better equipment of her school?

We cannot put too much emphasis upon school equipment. If a factory would be content with such bare equipment as in the school described above, it would not be very efficient. In fact its finer efficiency depends upon the things not mentioned in the above. Without more equipment than is listed above, the class exercises will be largely of the textbook questions and answers. No teacher can do her best work without the necessary tools.

The library should be a part of every school's equipment. At first, it should consist of the most usable books, supplementary readers, books of historical and geographical references, a dictionary, and at least one book of general information, even if it cannot be more than the World Almanac. Later, books of more general reading can be added. A lot of money has been wasted by teachers who did not know what books to buy. Once in a while you find in the libraries such trash as "Ten Nights in a Bar-room." If teachers will follow suggestions in the Library Day Book, prepared by the Department of Schools, they will save money and secure better books. It is of small worth to buy books unless they can be kept in a case. This case need not be expensive. In nearly every school may be found one or more boys who will gladly make a library case, or the neighborhood carpenter will make a case at small cost.

There should be several wall-maps, a globe and a primary reading chart.

Boards of education can easily be persuaded to supply these and help supply a library if the matter is brought to their attention in the right way.

The sand table is inexpensive and yet its possibilities are limited only by the limitations of the teacher. Anyone who can secure a few feet of lumber and can use the saw and hatchet can make a sand table. Already a number of rural teachers are using the sand table with fine results.

To set the small pupils to cutting paper may set a-wagging many tongues of the community who have been used to A. B. C. methods of teaching, but if a teacher is skillful she will be able to secure a half dozen pairs of scissors and thus make it possible for the little ones to forget many of their troubles while cutting paper. Are you afraid to try it?

These are but a few of the suggestions that might be made. The

finer things of the schools can be done by means of equipment not usually furnished by boards of education. It will all depend upon the ingenuity and skill of the teacher. The catalog of A. Flanagan & Company, of Chicago, will be suggestive to teachers, since it makes a specialty of such equipment. Any good book on methods of teaching will aid the teacher. The time has come when merely assigning lessons and hearing recitations out of books will not do. Such methods have never done well.

## THE DECORATION OF SCHOOL ROOMS.

Very many children, during their school lives, pass from 5000 to 8000 hours within the school room. What effect, then, the mere physical appearance of the school room interior may have upon the child is certainly worthy of consideration, though to that effect very little thought has usually been given. It is true that in many of our fine new city buildings the matter is being treated as carefully as are the other points that pertain to the well-being of the child, but in the great number of smaller buildings, in the country and in little towns the subject is practically ignored.

To the many earnest and faithful West Virginia teachers who, by their labors in securing school libraries, in beautifying school grounds, and similar endeavors, have shown their genuine interest and oftentimes a real missionary spirit and devotion, these words are written, in the hope that they may prove of some value for suggestion and guidance to such as may undertake some activities along this extremely important line. For it is not likely that much of this work will be done by the Board of Education, upon whose already overburdened shoulders the responsibility really rests. In most instances, probably, whatever is done will be another mark of the enthusiasm, the industry and patience of some humble and devoted teacher.

### *The Walls.*

An uncoated, plastered wall is not only an unbecoming and unattractive thing to look at, but is also an actual source of injury to the eye. Practically nowhere in Nature, do we find such an environment facing us. Physicians are of the opinion that its strong glare on the eye for a long time is a source of serious eye strain, with accompanying nervousness and restlessness. In our homes we usually strive to cover the plastered wall with some appropriate color.

The walls made of wood ceiling, which are found in so many of our school houses, soon darken by the natural change of the wood, so that they are perhaps less harmful to the eye, but on the other hand are even more ugly and unsightly than the plastered wall. The plastered wall may be relieved somewhat by pictures or other decorations, but the wooden wall is likely to look the worse for these.

For the plastered wall tinted preparations of the nature of the one in common use, called Alabastine, are not expensive, are quite durable, and come in an excellent range and variety of shades. For the wood it is better to use some of the so-called "flat" interior paints, that is, paints with a dull rather than a gloss surface. These are more expensive than the washes, such as the Alabastine, but they have the advantage that when they become soiled they can be sponged off and cleansed.

In the choice of colors both artists and physicians are pretty well agreed as to what colors are most suitable. It is a physiological fact that the shades towards the red end of the color spectrum are more irritating to the eye than those near the center of the spectrum. Therefore we should avoid such colors as yellow, orange and red. The greens, of which there is a wonderful range of tints, are both artistic, and soothing to the eye. Through countless ages our eyes have been getting accustomed to the various shades of green in the vegetation that surrounds us out of doors. Some buffs and light browns and some light shades of blue may do for certain rooms. Suggestions for color schemes will be found in the cards and other advertising matter issued by paint manufacturers, but where the teacher, with whatever assistance can be secured, undertakes to put on a coat of paint or other coating a single tint properly selected will do very well.

### *Pictures.*

A whole book would not more than suffice to treat adequately the subject of the pictures in the school room. A few of the chapters of Burrage & Bailey's School Sanitation and Decoration treat of the subject and any teacher having access to the book would do well to read it. Some general suggestions only can be given here.

The cheap, highly colored pictures of many kinds that are distributed free by commercial firms and companies for advertising purposes are not usually appropriate or suitable for school decora-

tion, although we often see them used for the purpose. Indeed, sometimes school rooms are found that have their walls almost completely hidden by material of this kind. Oftentimes it is tacked or nailed up to the wall and the following year will be torn down, leaving the wall permanently disfigured by the nails that were used in putting it up. The decorations of a school room ought to be of sufficient appropriateness and value to make them worthy to remain on the wall, when once put there; if not permanently at least not to be subject to removal except to put something better in their places.

*Subjects.* While it is better, in general, to take our subjects from the lists of the paintings by artists whose merit is generally recognized and acknowledged, still, it must be remembered that everything of this type is not suitable for school decoration. On account of the nature of the subject, or for other reasons, there are many paintings by the old masters which are not nearly so well suited to a school room as would be some less known pictures by modern painters.

The pictures for a single grade of a city school can be selected with reference to the interests of children of about one age, while an ungraded or one-room school will have the varying interests of children of all ages. However, there are still certain groups of subjects that are safe in any case.

The mother and the child, exemplifying mother-love; scenes of home life in the house, the yard, or the field; man's relations with the animal world, either of domestic or wild animal life; animal life without reference to man; the Christ-life, and other Biblical scenes; many views of land and water; any of these, properly selected are likely to present the elements of interest which will lead under proper guidance to the love for art. Such things abound in the paintings of the earlier and later masters. Millet, Murillo, Breton, Dupre, Reynolds and many other signatures will be found beneath pictures whose subject matter is exactly suited to the purposes of hanging in the school room.

*Kinds of Reproductions.* The common penny pictures have many uses in the school room, but they are not usually well suited for wall decoration. Besides their small size, they are usually of the sort of reproductions known as half-tones, which are not very good for the purpose. This is the kind of work we find in most magazine pictures, which, while satisfactory for that kind of illus-

trating, does not bring out the lights and shadows and tone values of pictures enough for the purposes of wall decoration. Many publishers get out reproductions of the general type of photogravures that are far better suited to the purpose. They come mostly in blacks and browns, and are true to the originals as well as being artistic and permanent. In sizes suitable for school use they can be had at prices ranging from a dollar to a considerably smaller amount, depending upon size.

*Sizes.* A picture of the size of 22x28 is large enough for almost any ordinary school room, while in subjects in which there is not too much detail such sizes as 20x24, 16x20 and even smaller, are often convenient and satisfactory. A large wall space naturally requires a larger picture than a smaller space, which enables us oftentimes to use various sizes of pictures for a pleasing effect in the same room. Sometimes quite a small subject, properly chosen, is just the thing for a narrow space between two windows and here long panel shaped pictures are oftentimes especially effective.

*Framing.* It is very rarely that we find an unframed picture in a refined home. It would certainly seem as out of place in a school room.

Probably the best thing that the teacher can do is to buy his pictures already framed, although there are some difficulties in the way of doing this. For instance, the ordinary dealers in the country and small towns do not have very carefully selected stocks, but buy in quantities, pictures that have been selected almost at random by the manufacturers who frame them, without much regard to the subject, the painter, the merit of the reproduction or anything else. They are especially likely to have cheap and highly colored, even gaudy reproductions of paintings by artists little known and perhaps of small ability. A person who knows for what he is looking may occasionally find in these collections some subjects that he wants, and that are worth having. Then the frames themselves are oftentimes very flashy and cheap, the gaudy effects covering all sorts of defects of workmanship and art.

Many small towns, and nearly all large ones, have men who frame pictures as a business and can do simple jobs of framing fairly well. To these, however, the teacher ought to be able to give definite instructions as to width and style of moulding, width of margins, etc.

A teacher with some mechanical and artistic conceptions if pro-

vided with the proper tools and materials can oftentimes teach himself to frame pictures, which art will not only enable him to furnish his school house with much less expense, but will also be a means of making some little extra money, for in almost every community there are people who want pictures framed.

A Marsh mitre machine for cutting the moulding can be had for about $10.00. This can be used in other departments of woodworking and carpentry. As to materials he will need the following:

*Moulding,* in two or three widths. This can be bought either already finished in various colors, or "raw," that is, unfinished, the stain to be applied by the framer, at prices ranging from 2 cents to 8 cents a foot. Stains already prepared and easily applied can be had for this purpose. One advantage is that the framer does not have to carry so large a stock of mouldings, which he would need otherwise in various colors.

*Glass.* An amateur would better confine his frames to two or three standard sizes, as say 22x28, 12x20, 11x14, for which he can get glass already cut from any dealer. Irregular sizes will cost more. The framer can soon learn to cut glass of any size he wishes, however, with some practice, and for from ten to twenty-five cents he can get a very good cutter.

*Backing.* The manufacturers make special backing for filling in behind the pictures, for protection, etc. Ordinary card board will not do, for it will warp and the picture will follow it and twist out of shape.

*Miscellaneous.* Screw eyes, picture wire, tacks and nails are kept at the hard-ware stores. The openings and cracks between frame and backing at the back ought to be pasted to keep out the dust and grime which will slowly work its way down inside the front of the picture. Some mat-board should be kept for mounting an occasional picture which comes unmounted. This is, however, one of the most difficult things that the framer has to do, and he should, whenever possible, buy his pictures mounted on the mat-board in exactly the form he wishes to use them.

*Suggestions.* The frame should be cut about an eighth of an inch larger than the picture so that if the picture gets damp and swells it will have room for expansion. A beginner will do well to start with small frames, of narrow moulding, say 1 inch or 1 1-2 inch. Many of the two and three inch mouldings are so thin that it is extremely hard to get a nail through them without splitting them.

A Yankee spiral punch or drill, is useful for drilling before nailing thin mouldings. Many writers advocate close framing—that is without a margin for the picture, but it is the opinion of the writer, after extended practice and observation, that a properly adjusted margin, of white mat-board or occasionally some harmonious shade gives the best effect for many pictures, especially pictures in which there is much detail. The width of the margin, however, is quite important. It does not look well if too wide, nor if too narrow. Ordinarily it should be of the same width around, although in some instances if slightly wider at the bottom the effect is good.

If the little penny pictures are used at all, they may be very cheaply framed with the passe-partout, in which form they are far more effective than unframed. In some instances several of these may be mounted with proper grouping on one mat-board, and all framed together.

### *Casts.*

Where the room has a shelf or other projection suitable for their reception plaster casts make a very interesting decoration. The manufacturers also sell pedestals and wall brackets suitable for the reception of these, although this will add considerably to the expense.

The casts should be got in the ivory finish. Reproductions of almost all the famous sculptures of the world can be had in this form, at prices that are quite low. Some small pieces that would do very well for the purpose would not cost over a dollar. The price however, increases rapidly with the size.

Bambini, by Della Robbia, The Madonnas by various sculptors, and many other pieces can be got in friezes, or bas-relief casts, ready to hang in some suitable space on the wall just as a picture is hung.

### *Flowers.*

At many seasons of the year the teacher can have either growing flowers or cut flowers on her table or elsewhere in the room, and certainly nothing will add more to its beauty. Unfortunately the variability of the temperature of the ordinary school room prevents the keeping of potted flowers there at all times. Still, the schools that begin early can have flowers in the room the greater part of the term, if the teacher so desires it and will take the trouble.

In some of the dusty, dirty, unkempt and disordered school rooms that we so often find in West Virginia, is it any wonder that so much of our attempted instruction goes for naught? A teacher who will find the way to reconstruct such an interior and to remake it into a clean, harmoniously colored room with its walls adorned with suitable reproductions of the world's best art is certainly bringing an environment around the school that will silently but powerfully re-enforce her teaching, and may give some lessons which, no matter how good a teacher she may be, are without her power. May the time come when all rooms of our schools will be such.

Dealers who are believed to be satisfactory are as follows:

Moulding and Framing Supplies, etc.

D. E. Abbott & Co., Huntington, W. Va.

The H. Lieber Co., Indianapolis, Ind.

Pictures:

Perry Picture Co., Malden, Mass.

Geo. P. Brown & Co., Beverly, Mass.

Bureau of University Travel, Boston, Mass.

The A. W. Elson Co., Boston, Mass.

Horace K. Turner Co., Boston, Mass.

The Taber-Prang Co., Springfield, Mass.

The first three above make a specialty of "penny pictures," etc. The next two make a specialty of traveling exhibits, but also sell pictures. The last has a fine line of all sorts of good pictures at reasonable price. W. A. Wilde Co., Boston, Mass., have a nice line of small colored biblical pictures.

Casts:

P. P. Caproni & Bro., Boston, Mass.

The C. Hennecke Co., Milwaukee, Wis.

Out of the many approved subjects in pictures a few are as follows:

Madonna of the Chair ..... Raphael
Rest in Flight ..... Knaus
Children of the Shell ..... Murillo
Baby Stuart ..... Van Dyck
Age of Innocence ..... Reynolds
Feeding Her Birds ..... Millet
By the Riverside ..... Le Rolle
Shepherdness Knitting ..... Millet
The Knitting Lesson ..... Millet

Caritas ..... Thayer
Member of the Humane Society ..... Landseer
The Connoisseurs ..... Landseer
The Blacksmith ..... Frere
The Escaped Cow ..... Dupre
The Sistine Madonna ..... Raphael
Madonna and Child ..... Dagnan-Bouveret
Children of Charles I ..... Reynolds
The Shepherdess ..... LeRolle
The Gleaners ..... Millet
At the Watering Trough ..... Dagnan-Bouveret
Automedon and the Horses of Achilles .. Regnault
The Horse Fair ..... Bonheur
The Aurora ..... Guido Reni
Kabyl ..... Shreyer
Pilgrims Going to Church ..... Broughton
Paysage ..... Corot
Joan of Arc ..... Bastien Le Page
Queen Louise ..... Richter
Sir Galahad ..... Watts
The Hay Maker ..... Adan
The Sower ..... Millet
Dance of the Nymphs ..... Corot
The Golden Stair ..... Burne-Jones
Washington ..... Stuart
A Reading from Homer ..... Alma-Tadema
Princes in the Tower ..... Millais
The Last Supper ..... Da Vinci
Can't You Talk ..... Holmes
A Helping Hand ..... Renouf
Monarch of the Glen ..... Landseer
A Halt in the Oasis ..... Shreyer
Angels' Heads ..... Reynolds
Christ in the Temple ..... Hofmann
The Broken Pitcher ..... Greuze
The Infant St. John ..... Murillo
Arrival of the Shepherds ..... LeRolle
Leaving the Hills ..... Farquharson
Return to the Farm ..... Troyon
Close of Day ..... Adan
The Infant Samuel ..... Reynolds

Song of the Lark .....Breton
Amiens Cathedral .....
St. Marks Cathedral .....
Notre Dame Cathedral .....
Milan Cathedral .....
Cologne Cathedral .....
The Colosseum .....
The Doge's Palace .....
The Rialto .....

## SANITATION.

Two mottoes that may be seen seem to exemplify the change that has come over man's whole attitude towards his life, so far as relates to the question as to whether his conditions in that life is to be of health and strength or of weakness and disease.

Not long since the favorite motto that adorned our walls was the familiar "God Bless Our Home," executed in every variety of lettering and color. The motto was, we might say, about half right. We needed, and we still need, all the care that can be bestowed for our protection by an all-seeing and loving Divine Being, but we were too apt to put all of the responsibility and care on the all-carrying shoulders of Providence. If while we sat in ease and comfort, disease struck us, with its torturous course leaving us in weakness or in death, it was Providence that was at fault, and we put forth many a solemn wail at the mysterious and devious ways of the Providence of God.

Still, a little labor would have covered the cess-pool that bred the typhoid carrying fly, or drained the pond in which the malaria bringing mosquito as a "wiggle-tail" spent his active youth, or have cleaned out the lurking germs of the dread white plague, left by some earlier victims of tuberculosis.

It might be stretching it a little to dignify it with the name of a motto, but the legend that we see so oftentimes nowadays, in so many places, might be worthy of the name. At any rate we surely can do no better than put into action its command, and whenever we have the opportunity "Swat the Fly." Without any doubt when we are doing this we are doing something that really is far more likely to defend our physical well being than we are in plastering our walls with mottoes of the old type.

For modern science is taking the position that disease has causes

that are removable and preventable, and is, therefore, unnecessary. We are learning what agencies carry and spread each kind of illness, whether it is the fly that is the noxious agent or the mosquito, or the flea, or the wind, or the water. We believe that by the destruction of the germs at their practical source, all diseases that pass from one person to another can be controlled. Other diseases that are brought to the individual not directly from some other individual but from the widespread contamination of waters and soils, will be prevented by stopping the infection of these things and by a more widespread diffusion of the knowledge of treatment of wounds, and of the laws of health in general. Diseases that originate within the individual from the misuse of the various organs in wrong habits of life ,as for instance dyspepsia from wrong habits of eating or wrong kinds of food, shall be made to yield to right habits of life, about which we are coming to know more, and sickness will be practically at an end.

These things are not an idle dream; they are practical scientific possibilities. The adopted text books in hygiene, sanitation and physiology give a fine lot of information that should be used to this end; but physiological knowledge is one of the most useless kinds of knowledge, merely as knowledge, just as it is one of the most valuable kinds of knowledge when applied. The teacher should have a burning enthusiasm for knowledge of this sort, should seek it and acquire it from all possible sources, and in all cases should be in her school and in her community a tireless missionary of the great gospel of good health.

Practically she should above all try to control the conditions of her school room for health. The room should be clean and every known sanitary principle within her power should be applied. For instance, the best air there is is that out of doors, and the one general principle of ventilation is to bring this air in as freely as is possible. Every dust mote may be the aeroplane of a jolly party of germs, ambitious to make explorations and settlements in some child's nose or mouth or lungs. Therefore the dust mote should reach the ground outside otherwise than by flight through the air. Blackboards should be cleaned outside of school time to reduce the amount of chalk dust. A dozen kinds of germs are lurking in the common drinking cup, and the weakest, the strongest, or the dearest child of the school may be the next object of attack by a colony of the most deadly germs. For each child to have his own cup is little trouble.

These are but a few of the things the teacher should make his daily thought. Nor should the teacher's efforts be confined to the school. Unhygienic habits of life in the child's family at home will often yield to the tactful talk of the teacher to the child. A teacher who might finally have this epitaph: "Each community in which she taught she left a stronger and healthier one." would certainly deservedly rank as a great teacher.

It is not the purpose of this article to furnish the rules and principles for such a work. Elsewhere must these be sought; in the physiologies; from medical works; from the physicians; and from many other sources. It is hoped, merely, that some teachers from reading here may have a stronger sense of duty and desire for this particular kind of service.

## GRADING AND PROMOTIONS IN RURAL SCHOOLS.

One of the chief difficulties in carrying out instructions in this course of study will be the grading of the pupils. And yet it is a rather simple matter as a general proposition. Its difficulty is found in applying the general principle to particular pupils.

Suppose you have a school that has never been graded, or at least has been only very poorly graded. The first thing to do is to determine what pupils should be in the first grade. Of course all who are just starting to school for the first time will be in that grade. Normally we would expect them to be six years of age. But some of them may be seven or eight years of age.

Furthermore, there will likely be some who have been in school one or two years, but who, because of irregular attendance, poor teaching or dullness on their part, have not learned enough of the first grade work to do the work of the second grade. These will also be in the first grade. Once it is determined what pupils will do the work of the first year, you have your first grade organized. Then you go to the course of study and find just what work these pupils will do. Similarly the teacher will organize the pupils into classes of the second grade, third grade, and so on up through the eighth grade, if all the grades are represented. And by referring to the course of study the teacher can tell just what work each grade will do and what books they will study.

It is to be hoped that no teacher in the state will this year disregard the course of study and go on in the old way of trying to teach each pupil in a class by himself. Even during the past year teach-

ers have been found with as many as a dozen classes in arithmetic, each pupil working by himself and going as far each day as he could work the examples or solve the problems. Such individual teaching might not be so very bad if properly done, but no teacher has time to do this. Some of the pupils will be neglected and the neglect usually comes to the smaller ones who really need most attention.

Once the school is graded the matter of promoting next claims attention. Normally the first grade would be promoted to the second grade at the end of the year, the second to the third and so on up to the eighth grade, who would receive their diplomas. But it does not always work out so in actual practice. Some pupils will do better than others. The test for promotion should always be ability of the pupil to do the work of the next higher grade. If at any time a pupil can do the work of the next higher grade, he should be promoted. This situation will not often arise unless there be pupils whose age would normally place them in a higher grade. In such cases the pupils should be given a trial in the grade of their age, or the grade next above the one in which they have been placed. It may be that a teacher will misjudge a pupil's ability to do the work of a given grade and place him in a grade too high. This misjudgment is all the more likely where poor records of the pupil's work have been kept, the teacher being compelled to rely on the pupil's statement or a brief oral examination. In such case the pupil should, after a fair trial, be placed in the next lower grade.

The classification of pupils by grades is a means of economizing the time and energy of the teacher. The chief reason why grading is important in a rural school is that a teacher can in fifteen minutes teach half a dozen pupils more and better in a class than if she gives each of them 2½ minutes separately. And since the rural teacher has from six to eight grades, it is the only way she can distribute her time so as to get the best results in the short time at her disposal. Furthermore, there is something to be gained by the association of pupils in a class. They learn from one another and have a means of measuring their attainments with those of their fellows.

## EXAMINATIONS AND THE FREE SCHOOL DIPLOMA.

There should be no written examinations for promotion below the fourth or fifth grade. There may be written exercises of the nature of examinations. Even then and thereafter promotion should not

be determined wholly by the results of the examinations. The teacher should keep in mind always that the true test for promotion is ability to do the work of the next higher grade. The examination, therefore, should be only one means of determining this ability. The examination should be a fair test of the pupil's knowledge of the work he has been doing, and at the same time should be a test of the pupil's ability to generalize from this knowledge and apply it to new situations.

The final examination for the free school diploma will be prepared by the State Superintendent. This examination will aim to test the pupil's knowledge of the elementary subjects. It will determine first, whether or not the pupil has received all from the elementary grades that it is worth while to get, and second, whether or not he is prepared to do the work of the first year in high school.

The free school diploma is serving as a fine incentive for pupils to complete the elementary grades, especially where a high school is within reach of the pupils. Teachers will be rendering a great service not only to their pupils but also to the state by acquainting the boys and girls with the value of finishing the course and receiving the diploma. To develop the habit of finishing a task once begun is an essential step toward success in life. Winning promotions year by year and finally this diploma will be a valuable contribution toward fixing such a habit.

## LITERARY EXERCISES.

Every school ought to make some provision for so-called "literary work" or "literary exercises." It is perhaps best for certain reasons to have this done in the school under the supervision of the teacher, but if there is sufficient interest among the patrons to maintain a good literary society, meeting in the school house at night, it is well to organize it. The literary exercises of the school cannot assume that breadth of scope which the literary society does, because of the immaturity of its members.

The school should, in a measure at least, become a social center for the district. The regular meetings of a literary society furnish the opportunity and occasion for the patrons of the school to meet and discuss the subjects that are of interest to them. It affords the teacher also an opportunity to meet the patrons, to become acquainted with them and to explain the work of the school and interest them in its work and enlist their co-operation.

There will always be in every community those whose ability and information fit them to discuss the larger questions of the day. They bring to these discussions the results of their own experience and knowledge of affairs, and the younger members of the society profit greatly by hearing them. In this way the literary society renders both an intellectual and a social service.

The work of the school is quite largely a work of acquiring, of taking in, of impression. In earlier years the mind's ability to take in exceeds its power to give out. And yet the power to express is the practical power to the adult. It is the man who has been trained to express himself who becomes the leader of others. It was said of David Page, the first principal of the Albany, N. Y., Normal School, that one of his chief traits was his ability to think and to express his thought, "while standing on his feet before folks." This power like every other may be stronger in some than in others, but in every case it is developed by experience and trial.

It should be borne in mind also that work of this kind is easier for children in their earlier years than it is later. It is very difficult for one who has reached maturity without having had any training in public speaking to make the first attempt. As pupils enter the period of adolescence they become more self-conscious and it is more difficult for them to respond to such requirements.

The work, so far as it is under the direction of the teacher should be carefully supervised. Pupils left to themselves are apt to select readings, recitations, etc., with reference to some vein of humor which is apt to be broad or coarse. The literary work should aid in the appreciation of good literature. To this end the teacher should help the pupil to select his material from writers of known ability and reputation. The fact that material of this kind can be used in the literary work furnishes a stronger motive for the careful memorizing of select poems and passages of literature.

The exercises of most value to the pupil, however, are those which call upon him to work up in his own way the material which he may have accumulated on any subject. This is original work. Theme writing is to literature and reading what the laboratory is to scientific study. It is the means of working up into usable form the materials which one collects. Hence the essay, oration, or written debate is valuable in developing the original power of the pupil and teaches him to arrange his ideas and express them in the most forcible way.

In many schools literary societies are organized, which elect their own officers, construct their own programs and conduct their entire exercises. These societies are always, of course, subject to the supervision of the teacher. They have this advantage, that they give pupils a practical training in the conduct of public bodies, and make them, to some extent, familiar with some of the principles of Parliamentary Law.

## READING CIRCLE WORK.

The idea of the Teachers' Reading Circle arose some twenty-five or thirty years ago, and it has been one of the prominent factors in arousing interest in, and developing the study of, the professional side of the teacher's work. It is a matter for congratulation that with so little organization to push the work in this state, so large a number of the teachers read and study the books recommended each year. Every teacher in the state ought to be an enrolled member of the Circle. A few reasons follow why this should be done.

The value of the Reading Circle work to the teacher lies *first* in this, that it selects his professional books for him. The texts recommended for study from year to year are selected with especial care both as to their treatment of the subject and as to their adaptation to the needs of the teachers of the State. They can be depended upon as being sound in their teaching, and they are selected with reference to the particular needs of our own state. Many books are examined before a selection is made. In the great multiplicity of books on educational subjects now coming from the press, the matter of proper selection of one's professional reading is no easy task.

*Second.* Every teacher, whether he has had a normal course or not, must read some educational books in order to grow professionally. No teacher can long continue to do successful work who is not keeping up with the progress in his profession.

This progress has been so rapid in recent years that it requires the teacher to be on the alert all the time. Ten years has seen almost a complete change in the view of the purpose of the school and of the methods of attaining that purpose. These changes are reflected in the more recent books and literature and, therefore, they are the sources to which teachers must go for their own knowledge of the progress and current tendencies in education. Constant reading of the literature of the profession is necessary to one's professional growth.

*Third.* The aim in the Reading Circle work is to select books from year to year so as to present different phases of education or different fields of study. The history of education, psychology, method and the general principles of teaching, all, by this means, receive their proper consideration and the teacher's professional reading maintains a balance and proportion which it otherwise might not have.

*Fourth.* By the purchase from year to year of the books recommended for reading, one soon accumulates a library of well-selected professional books with which he is thoroughly familiar. Frequent reading and study of these works helps, at least, to furnish clearer ideas of the purposes of the public school and of the processes of educating the child. The more clearly these purposes and processes are seen the more direct become the efforts of the teacher and the better are the results of his teaching. In other words, careful study of the books prescribed in the Reading Circle will tend to more efficient work by the teacher.

## PLAY.

Certainly every teacher in our remotest country school has heard of the importance of teaching children, and even adults, by beginning with what they already know. This is a widely recognized principle and should be applied in every phase of school room work. Play is one of the instincts found in the early development of child life. It is only the abnormal, or very exceptional child who enters school with little or no knowledge of spontaneous play, and of a few simple games. Hence, this elementary knowledge of games will serve as a good starting point for teaching. Each teacher should, early in the term, ascertain what games the pupils know, what ones they like, and how skillfully they can play them. These facts will throw much light upon the mental habits of the pupils and upon their skill in motor control, two facts which the teacher must know before he can do effective teaching. If the young pupil has a particular desire to play ball it is quite probable that you can teach him this word much more easily than a word which does not appeal to his interests. If the pupil lacks motor control you may be able to discover some physical defect, which, if not attended to, will seriously impair mental development; that is, the teacher may be able to discover a defect in seeing, or hearing. There are

other reasons, however, why the teacher should give attention to play. The main ones are recreation and sport.

Games have a positive educational influence in the development of the individual. The child who is dull, slow, and timid, and seems to hesitate before acting upon external stimuli often undergoes a complete change under the influence of carefully planned or spontaneous games. His sense of perception is cultivated by learning to see the ball when it is coming towards him, to make the proper muscular reaction with the bat, to hear the footsteps behind him, to recognize and respond quickly to all the stimuli around him. If he is excelled by pupils of his own age and seeming strength his motive will be strong for improvement. The awkward pupil has strong reasons for developing activity and grace.

Many children who are timid and backward owing to certain home environment naturally shrink from society. They lack self-confidence and hesitate to trust others. On the other hand, there are those who are bold, over-confident, and self-assertive. Nothing is a better leveller for these two cases than games which require co-operation. The timid child gains self-respect and confidence, and the boisterous one learns that he cannot secure results without the co-operation of his playfellows.

Many children come from families in which they move according to that which pleases them. They have always acted upon impulse and have never learned to suppress a desire for the sake of the end to be attained. Well chosen and skillfully directed games will do much towards developing the children's ideas so that they will act for the good of society rather than for selfish purposes.

Games for young children should have few restrictions and should aim to develop spontaneity and initiative. However, the very young child will soon learn that he must conform to certain regulations; these regulations become more formal and exact as the child matures and indulges in other games. He soon learns that he cannot bat out of his turn, that the rights of other pupils must be respected, and that at times he must even make a sacrifice hit in order that another may score. Ample opportunity is afforded for the pupil to distinguish between winning by fair means or by foul. If a love of fair play is instilled into the pupil at an early age it will be of inestimable value both to the pupil himself and to society.

We would suggest to teachers that games be selected which have strong playing values, i. e. the game selected should contain the

elements of both sport and interest. Let the teacher participate in all games. Do not make games too serious; get fun and laughter out of them. In teaching games much interest may be added if a full explanation is given by the teacher before the game is begun. This may often best be done by means of diagrams upon the blackboard. Whenever the interest in a game wanes the teacher should be ready to suggest a new one. Games furnish excellent opportunity for teaching discipline; let the teacher see to it that good discipline prevails upon the play ground. Teach pupils to play to win, but emphasize the importance of proper tactics, and aim to cultivate a high sense of honor.

For further study of games it is recommended that the teacher procure a copy of "Games for the Playground, Home, School and Gymnasium" by Jessie H. Bancroft. The book is published by the Macmillan Company, New York. Price $1.50. It names and describes a large number of games suitable for each grade in the elementary school. The following list may prove helpful to teachers.

**First and Second Years.**

| *Playground.* | *Indoors.* |
|---|---|
| Jack be Nimble. | Changing Seats. |
| The Muffin Man. | Bean Bag and Basket Relay. |
| Teacher and Class. | Kaleidoscope. |
| Do This, Do That. | Oats, Peas, Beans. |

**Third and Fourth Years.**

| *Playground.* | *Indoors.* |
|---|---|
| Bean Bag Circle Toss. | Blackboard Relay. |
| Single Relay Race. | Leaf by Leaf. |
| Prisoner's Base. | Slap Jack. |
| The Farmer is Coming. | Target Toss. |
| Hill Dill. | Last Man. |

**Fifth to Eighth Grades Inclusive.**

| *Playground.* | *Indoors.* |
|---|---|
| Circle Dodge Ball. | Blackboard Relay Race. |
| Wood Tag. | Nimble Squirrel. |
| Double Dodge Ball. | Bend and Stretch Relay. |
| Jumping Rope—III. | Hen Roost. |
| Partner Tag. | The Minister's Cat. |
| Old Woman From the Wood. | Author's Initials. |
| War. | Prince of Paris. |
| Base Ball. | |

## MORALS AND MANNERS.

Character has a physical basis and this fact should be recognized early in life by the child. The teaching of morals and manners should be so directed that the child would realize that its physical welfare will be benefited, and that it pays to do right for economic and social reasons. It should be made clear to children that their usefulness, influence, and happiness in life will depend very largely on the character they will build.

There are two distinct periods in character building that the teacher must recognize if any desirable results are to be obtained. The period of childhood from six to about twelve or thirteen and the period of youth from twelve or thirteen to about twenty years or later must be clearly distinguished. In childhood the instincts are individualistic. The appeal must be made only in so far as the child can see a personal benefit to be derived. All other teaching must be based on recognized and accepted authority. The important thing in childhood is to have the child act out every moral idea and precept that is to be learned. A properly organized school furnishes very excellent situations for the child to do what is to be learned. With the child even more than with the youth the doing is the learning.

As soon as the child attains to the age of youth a very different manner of treatment must be accorded him. His social instincts now make it possible for him to become morally whatever his environment will produce in him. He now has a natural disposition to do and to live for other people. The teacher should not only recognize this new sense but he must also recognize that the youth has a keen sense of the respect, reverence, and confidence that he is worthy of. He should be treated now as one whose opinions and behavior are of real worth to other people.

Some of the things that the child should learn are cleanliness, neatness, promptness, regularity and obedience. It is also well that the child should learn that it should pay for a benefit before it enjoys it and that it should take pain before pleasure when the one follows the other. Teach by incidents, illustrations, and stories well told to impress the idea and to secure the proper response in conduct. Show that kindness, honesty and truthfulness have their sure reward. Teach that industry, politeness, and respect for other people are desirable virtues and that idleness, rudeness and irreverence are vices to be avoided.

Teach the youth to see clearly the need and value of institutions, of government and of society. Use biography, history, and literature to show how civilization depends upon the co-operation of human beings of all classes and ranks of life. Give the youth large opportunity to act out his moral ideas and place responsibility upon him for which he is to account in a reasonable length of time. Keep in mind in dealing with both children and youth that prevention and not reformation is the school's function. The time to act on the part of the teacher is before the impulse and instinct have resulted in undesirable behavior.

## PLAN BOOK.

There is no learning without thinking on the part of the pupil. Memorizing is not learning. There is no teaching without thinking and reasoning on the part of the teacher. Hearing pupils recite the lessons they have acquired and drilling pupils on what they have not yet acquired is not teaching.

There is no teaching without thinking on the part of both pupil and teacher. Thinking, in this connection, may be described as making plans to meet felt needs and finding means to secure the end planned for. Thinking consists in planning worthy purposes and aims and in finding the most economic means to the attainment of these purposes and aims. It follows that successful learning and teaching alike must be well planned.

Every teacher should have a plan book of convenient size. A blank book about 8x10 inches is suitable in size. The teacher should begin to collect material in this book not later than the county institute in any school year. During this institute week, many suggestions should be developed into tentative school plans which should later mature into very definite plans for teaching. When the school opens, the book should contain the large plans for the entire year and detailed plans for the first week or two.

After the school has opened in the fall, the plan work should be done weekly and daily. At the end of each week, the plans for the next week should be written in the book. These plans should indicate briefly how much will be attempted in each subject; book subjects by topics and outlines, etc.; objective subjects as nature study, home geography, agriculture, etc., by very definite accounts of the material to be used in each lesson, together with the aim or purpose in presenting the material. In doing this weekly plan

work, the text book material should be carefully sifted to find what the pupil will need to learn, what difficulties the pupil will find in learning the material, and what may be omitted. This is the time to rank the material according to its educative value. As the book grows from week to week, the teacher can look back in it to get the trend of his school and to direct the school more wisely and economically.

There can be no successful teaching without daily preparation and planning of the work. A teacher never becomes so thorough in any subject that daily preparation is not necessary to teach it successfully. To provide for good teaching and the growth of the teacher, individual lessons should be planned as often as time will permit. A plan of this kind consists in stating the aim or purpose of the lesson or group of closely related lessons, an analysis of the material to be studied in the lesson and the chief teaching questions to be asked the pupils.

Suggestive school room material, such as seat work, plan books, etc., may be found by writing C. W. Bardeen, Syracuse, N. Y.; A. Flanagan, Chicago, Ill.; or Milton Bradley, 11 E. 16th St., New York. A chapter on lesson planning together with a number of lesson plans may be found in Strayer's "The Teaching Process," published by the MacMillan Company, New York City, $1.25.

## THE DAILY PROGRAM.

A program of work is a labor saver. Most people waste much time and energy because they do not have a regular time and order in which to do their work. Much of the useless worry of men and women, to say nothing of the waste, is due to lack of a definite plan. Our stomachs require regular, systematic use for efficiency in digestion; much more so our brains require a regular, systematic use if efficiency and health of mind may be expected.

Students and teachers, more than other people, need a daily program of study, recitation, recreation, etc. The pupils in your school should be taught to see the value of a daily schedule of the time and order in which they do all their work, from arising in the morning to retiring at night.

A proper use of a well-planned daily schedule of study and recitation will not only diminish worry and waste but it will do much toward securing better learning as well as provide for happier pupils and teachers.

## TYPE DAILY PROGRAM OF STUDY AND RECITATION

| Ex. and Recit. begin | Time in minutes. | RECITATION PROGRAM | STUDY PROGRAM | | | |
|---|---|---|---|---|---|---|
| | | | Section D—Years 1–2 | Section C—Years 3–4 | Section B—Years 5–6 | Section A—Years 7–8 |
| 8:50 | 10 | Opening Excercises | | | | |
| 9:00 | 20 | A History & Civics 7-8 | Reading | Reading and Spelling | Reading 5 History 6 | |
| 9:20 | 10 | D Reading 1 | Reading 2 | Reading and Spelling | Reading 5 History 6 | Language Composition Spelling |
| 9:30 | 10 | D Reading 2 | Board Work 1 | Reading and Spelling | Reading 5 History 6 Literature | Language Composition Spelling |
| 9:40 | 12 | C Reading 3 | Board Work | Reading and Spelling 4 | Reading 5 History 6 Literature | Language Composition Spelling |
| 9:52 | 13 | C Reading 4 | Board Work | Language Spelling Literature | Reading 5 History 6 Literature | Language Composition Spelling |
| 10:05 | 15 | B Reading 5 | Seat Work | Language Spelling Literature | History Literature 6 | Language Compsotion Spelling |
| 10:20 | 15 | B History Literature 6 | Seat Work | Language Spelling Literature | Language Spelling Literature | Language Composition Spelling |
| 10:35 | 10 | RECESS | | | | |
| 10:45 | 20 | A Language Composition Spelling 7–8 | Story & Literature | Language Spelling Literature | Language Spelling Literature | |
| 11:05 | 12 | D Story and Literature | | Language Spelling Literature | Language Spelling Literature | Agriculture or Physiology |
| 11:17 | 13 | C Language Spelling Literature3–4 | Reading and Drawing | | Language Spelling Literature | Agriculture or Physiology |
| 11:30 | 15 | B Language Spelling Literature 5–6 | Reading and Drawing | Nature Study and Geography | | Agriculture or Physiology |
| 11:45 | 15 | A Agriculture or Physiology 7–8 | Reading and Drawing | Nature Study and Geography | Geography and Nature Study | |
| 12:00 | 60 | NOON | | | | |
| 1:00 | 10 | D Reading 1 | Reading 2 | Nature Study and Geography | Geography and Nature Study | Arithmetic and Bookkeeping |
| 1:10 | 10 | D Reading 2 | Nature Study 1 | Nature Study and Geography | Geography and Nature Study | Arithmetic and Bookkeeping |
| 1:20 | 15 | C Nature Study Geography 3–4 | Nature Study | | Geography and Nature Study | Arithmetic and Bookkeeping |
| 1:35 | 15 | B Geography Nature Study 5–6 | Nature Study | Arithmetic | | Arithmetic and Bookkeeping |
| 1:50 | 20 | A Arithmetic Bookkeeping 7–8 | Seat Work | Arithmetic | Arithmetic | |
| 2:10 | 10 | RECESS | | | | |
| 2:20 | 15 | Writing and Spelling 1–8 | | | | |
| 2:35 | 15 | D Nature Study 1–2 | | Arithmetic | Arithmetic | Literature |
| 2:50 | 12 | C Arithmetic 3 | Seat Work | Arithmetic 4 | Arithmetic | Literature |
| 3:02 | 13 | C Arithmetic 4 | Seat Work | Literature 3 | Arithmetic | Literature |
| 3:15 | 20 | B Arithmetic 5–6 | Seat Work | Literature | | Literature |
| 3:35 | 15 | C–A Literature 3–8 | Literature and Drawing | | | |
| 3:50 | 10 | Spelling 4–7 | Literature and Drawing | Composition Spelling 3 | | |
| 4:00 | | Dismissal | | | | |

The type program here given is to help teachers plan programs for their own schools. It will require careful study of this program on the part of teachers to be of use to them.

In this daily schedule it will be observed by the teacher that nature study includes the beginnings of a number of subjects. Under this head the classes will study and recite in geography until the 4th year, in hygiene and sanitation until the 7th year, in number study during the 2nd year. This correlation of number, geography, physiology and sanitation with nature study will save much time for the teacher.

Spelling should be taught at all times in connection with language and composition. All written work should be correctly spelled by the pupils. There is but one period a day for spelling book recitation. This is for pupils from the 4th to the 7th or 8th year. Fourth and 5th year pupils should form one class in spelling, and 6th, 7th and possibly 8th year pupils another class. These classes should recite every other day.

Agriculture and physiology should alternate. In any event agriculture should receive about twice as much time as physiology. If the school is crowded for time, the book called physiology should not be taught.

History and civics should be taught in the same class. There should be no separate class for civics.

In the 8th year arithmetic and bookkeeping are taught together. Composition and spelling in the 3rd and 4th years should be directed as seat work and carefully inspected by the teacher.

There is one period for literature for three sections. Section C should recite about once per week; sections B and A should each recite twice per week.

# COURSE OF STUDY

## FIRST YEAR.

### READING (HISTORY AND LITERATURE.)

#### General Suggestions.

One function of the school is to shorten the time necessary for learning. The amount to be learned by school children, even after all proper eliminations are made from our present program of studies, is increasing from decade to decade. The school should accept the situation and its responsibility to save time and energy for boys and girls in acquiring knowledge.

Children may learn to read in three years. Reading as a distinct subject should cease not later than the end of the fifth school year. Five years of six months each is sufficient time to learn to read. After the fifth year, learning to read should be incidental to reading to learn. Time and energy in learning to read may be saved by providing better selections for reading, closer correlation with other subjects, reasonable motive, clearer notions of the nature of reading, and better methods and devices for teaching the subject.

In selecting the material for reading lessons, it is necessary to consider the child's tastes and interests, his ability to comprehend and appreciate and the demands of his emotional nature. The selections for reading should be narrative rather than descriptive. The story with action is well suited. There should be some dramatic action to arouse his curiosity; it ought to be possible to ask what will happen next.

The reading should be closely correlated to the other studies in the school. Increasing the child's stock of images, ideas, etc., in the lower grades is the business of the nature study, oral stories, literature, etc. After the children have clear images, ideas, meaning for the words and sentences they know by sound, they are ready to begin to interpret the symbols by sight. To put the symbols, the sentences and words before the images, ideas and meaning is to waste the time and energy of children.

The danger in teaching reading is that the children will learn many symbols—sentences and words—for which they have no images, ideas and meanings. To pronounce the words and to control the other elements of form involved in reading is no evidence that the children have the meaning. Children have a fatal facility in handling symbols without the meaning. Reading means intellectual death to children if the meaning is ignored and the process is reduced to one of drill upon the words and sentences.

Learning to read consists of two different processes. The first is the associating of the images, ideas and meaning the child already has in its mind with the sentences and words present to its sense of sight. The association must be repeated until the words and sentences call up the images, ideas and meaning. This enables the child to do silent reading. The second process consists in the child's pronouncing the words, phrases and sentences in such a way as to convey the correct meaning. This enables the child to do oral reading. The correct order is silent reading, then oral reading.

**A Black-board Lesson in Reading for Beginners.**

Teacher's Aims:

1. To produce and encourage freedom and naturalness of vocal expression, that monotony of tone may be completely obviated.
2. To teach the words *roll, toss, (the) ball.*

| *Subject Matter.* | *Method.* |
|---|---|
| A. Preparation.<br>For spirit and attitude.<br>For physical movement. | A. Preparation.<br>(Have a short conversation with the pupils about *the ball.* Let them handle it, and play with it. Have them bounce it; toss it; catch it; roll it. |
| B. The "language-reading" lesson.<br>1. Roll the ball.<br>2. Toss the ball.<br>3. I can roll the ball.<br>4. I can toss the ball.<br>5. Jack and Jill can roll the ball.<br>6. You and I can toss the ball.<br>7. Toss the ball.<br>8. Roll the ball. | B. The teacher says: "Roll the ball, James." James rolls the ball.<br>Teacher says: "Now my chalk will say what I have said. Watch the chalk."<br>She then writes:<br>Roll the ball.<br>"You may *read* what the chalk says, Mary."<br>"You may do what the chalk says, Helen."<br>In a similar way, giving place for *doing* and reading, the whole lesson may be presented, sentence at a time being written. |
| C. To judge and criticize constructively the work as it is done.<br>Read the stories in such a way that they seem to be speaking, and the other little children will wish to do what the readers tell them. | C. Did you enjoy hearing Helen read? Why?<br>What might Helen have done to make the story more enjoyable?<br>Who will try to read it in this way? |

D. Summary. To review the new words *roll, toss, the ball.*
1. Children pointing to words and naming.
2. Teacher pointing, children naming rapidly.

D.
1. You may show us one word which you learned today and expect to remember always.
2. Be ready to name quickly any word I point to.

(Individual answers, not group-work.)

**A Black-board Lesson in Reading, Using the Primer.**

Teacher's Aims:

1. To prepare the children for the use of the Primer (The Story Readers), by creating an interest in *Dot* and *Don*, the little children of the book.

| *Subject Matter.* | *Method of Procedure.* |
|---|---|
| A. Preparation. | A. Preparation. Tell the children some short, interesting story about a little boy and girl named Don and Dot. Each teacher should weave this story to meet the particular interests of her class. |
| 1. A story. | When the climax of the story is reached, tell them that you have a great surprise in store for all those who read well the stories on the board this day. |
| 2. The surprise. | |
| B. The reading. | B. The reading. "Who was Jack?" "The chalk tells us." "You may read it, Anna." "This story tells us who Little Boy Blue was. Read it, William.." Etc. "Would you like to know more of Dot and Don? Well, this is your *surprise.* You have read this so well today, that tomorrow you may each try to read it from a new, new book I have for you. But let us be sure we know the names of our new friends." |
| 1. Jack is a little boy. | |
| 2. Little Boy Blue is a little boy. | |
| 3. And Don is a little boy. | |
| 4. Miss Muffet is a little girl. | |
| 5. Jill is a little girl. | |
| 6. Dot is a little girl. | |
| 7. Dot and Don are our new friends. | |
| C. Word review. | C. "You may show the word which says—Dot." "Don." "Tell me these words as I point to them quickly." "Who is ready to erase every word which says Dot? Don? Tomorrow we shall use our new books." |

**First Grade.**

In the first grade, there should be about three or four short periods per day for reading rather than two longer periods. Plan the work well; then have the children respond with vigor. Have

no class this year in phonics or in spelling and do not introduce these subjects into the reading of this year. Simply have all words correctly spelled when the children have occasion to write. In assigning all written work, be careful to provide a way for the children to find how the words are spelled. Have the child learn the new words in sentences where they have their meaning and use. Neither the child nor the adult has use for words except in sentences; it is waste to learn isolated words. There are many devices for calling attention to words and for providing for the repetition of words and sentences.

Have the children picture clearly in their minds and feel the meaning of what they have read. Let no oral reading be poorly done. The teacher should read often with the pupils.

The plan of the teacher should be to have the pupils learn how to read. The purpose of the pupils should always be to read to know and enjoy some story, bit of literature, etc. This point of view of the pupil properly provided for and maintained will facilitate learning how to read. To this end the story or nature study material upon which the first lessons in reading are to be based should be presented to the children in a lesson or two before reading is begun. The pupils should be attracted to the nature study or story material; they should form clear images and ideas; teacher and pupils should enter into conversation upon every story or nature study material until ready expression on the part of the children is secured.

The reading material should be drawn from daily life, objects and attractive stories and literature of action. Neither the primer nor the first reader should be used to begin the reading lessons. At first the reading should be from the blackboard and based upon conversations at the time about objects, pictures, drawings, stories, etc. Use large plain script in writing on the board.

Plan the work on the board as to objects, stories, etc., used, and words learned, to prepare for the primer or reader to be used. During the first year the child should finish the adopted primer and reader and one or more supplementary primers or first readers.

Busy work—Let the first year pupils write and draw on the board, write and draw with large soft pencils on paper, make paper cuttings of the stories learned, do well planned nature study work, and read the easy supplementary readers and story books. Some kind of constructive hand-work such as card-board cutting, basket-making, weaving, etc. can be easily planned. A helpful little book—

Games, Seat Work, and Sense Training Exercises, is published by A. Flanagan Company, Chicago, Ill., $0.40.

### A Study Lesson in Reading, Using the Primer.

Teacher's Aim:

1. To have the children enjoy their first use of the reading book; to have a good time with the lesson.
   a. By understanding the use of pictures.
   b. By interest in the story itself.
   c. By appreciating the fact that our beautiful poems and stories such as "The Swing" are to be found in books.
2. To have the children read with as much ease, fluency, and naturalness of expression as they had acquired in their reading from the blackboard.
3. To begin to inculcate the habit of correct standing, and correct holding of the book; also, the sharing of thought by the eye as well as the voice.

| *Subject Matter.* | *Method.* |
|---|---|
| A. Preparation. | A. Preparation. |
| 1. Getting acquainted with the book. | 1. "This is the surprise which I promised you for today. Now you may look all the way through the book, and see all the pretty pictures before we begin to read." |
| 2. The lesson, page 8. | 2. "Let us all turn to page 8 and see what we shall find there. What do you like most on the page? Tell us what you see in the picture." |
| a. The picture. | |
| b. The new words. *swing, swinging.* | b. "What do you suppose is the litle girl's name?" |
| (Review) *Dot, Don, catch.* | "Yes, it is Dot." (Teacher points to Dot.) (Blackboard study.) |
| | "The little boy's name? And this word says Don." |
| | "Where is Dot? Very well, this word tells where Dot is. It says *swing.* And this word says *swinging.*" Find in your book Dot. Put your fingers on it, and I will see how many have it. Find *swing; swinging; Don.* |
| B. Reading. | B. Reading. |
| a. The voice. | "Shall we not "make believe" that the little boy is calling Dot? Make your voice tell us that Dot is answering Don. |

| | |
|---|---|
| b. Proper way to hold the book. | Do you like the way James stands to read this story? How might he "share it" with us better? You may try, Martha. |
| c. "Sharing the story" with the eyes, as well as the voice. | Compare the two readers, tell which did the better work. Why? |
| C. Review the story, having one child take Dot's part, another Don's. | C. "You may be Dot, and you may be Don. We shall see if it sounds like a little boy and girl playing and talking together." |
| D. The poem at the bottom of the page. | D. "Now there are four lines at the bottom of the page which we have not read. I'll read them to you.<br>Do you like that?<br>How many would like to learn to read so they may find beautiful poems like this one and read them?<br>Well you will, if you are very patient each day. |

## NATURE STUDY.

### General Suggestions.

Nature study is a study of the world of out-door objects and phenomena. Its purpose is to aid in building up the child's mind by direct observation of the common things in the child's environment. It should put the pupil in a sympathetic attitude toward nature for the purpose of (a) increasing the joy of living, and (b) laying the foundation for an appreciation and understanding of geography, botany, zoology, physiology, and agriculture. The child must have rich, abundant, individual experience before it can come to a knowledge of its inheritance, the race experience.

Books form no part of this study. Nature study is to precede the use of books on the part of the pupil. The child here must get sense contact through the naked eye, ear, touch, smell, and taste of the world around it. The best nature study is out-door observation, although some of the material can be brought into the school room.

In the choice of material for study there are two determining factors: (a) the objects and phenomena for observation and study must be those of which the teacher has most knowledge and in which he has most interest, (b) the material must be that which is commonest, most easily seen and appreciated, and nearest and dearest to child life.

When the material, objects or phenomena, for nature study have been selected, the method of approach is simple enough. There are then three things in the order of approach and contact of the child's

mind: (a) the fact, object, or phenomena sensed by the child, (b) the reason for the fact sensed by the child, (c) the interrogation left in the mind of the child.

Believing that a course of nature study should precede the study of agriculture we may proceed with the outline for a course of study in nature study for the first six grades of the public school. Let it be finally understood that nature study deals with common objects and processes as they directly affect human life and interests; that it cannot be book-study; that both the material and method must be for the child rather than the adult; and that the main purpose is to get pupils to see and think for themselves.

### Grades One and Two.

In these grades the main aim should be to give a general acquaintance with and awaken an interest in nature, as it lies nearest to the children. Birds, trees, flowers, and. pets should be the general topics. Select the nearest and most interesting and teach only the characteristics which are easily within reach of the child's comprehension.

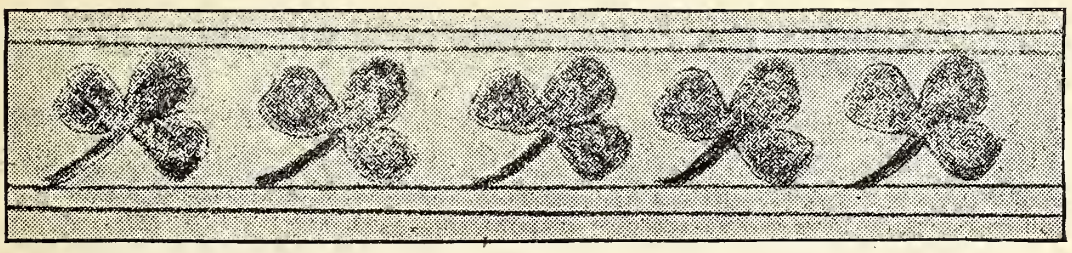
Animals—Birds—Learn common names of a dozen or more; learn their songs, haunts, and interesting habits; feed them and make homes for them; make arrival charts; note migration southward in fall and northward in spring.

Watch for the first appearance of the robin.

Dog—Have a little pet dog in the school room, study structure, habits, adaption; uses—to hunt, carry burdens, guard homes; friendliness, bravery, affection for master; care of dogs. Kinds in the community—pictures of different kinds, all of dogs; pictures of the dog's relatives—the wolf, fox, hyena, and jackal. Cat—Study a live kitten in the school room; structure, habits, care of cat, kinds in community, pictures, feeding same, no meat for young maltese, adaptation; its use, proper care, friendliness; study cat's relatives—lynx, wild cat, puma, panther, lion, tiger—from pictures and stories. Other animals may be studied in like manner. Study the wild animals of the community. In each case place particular stress upon the value of the animal to the farmer.

Plants—Trees—teach the names of a dozen or more fruit or nut bearing trees; study in the fall the fruit—shape, size and value to man; teach the names of the most common forest trees, the recognition of their leaves, leaf coloration, use to the farmer. Study pods

as seed homes—beans, peas, milkweed, wild cucumber, catalpa, locust, squashes, pumpkins, gourds; study different kinds of food grown in the neighborhood. Soak seeds and place in moist saw dust in separate dishes; place one in a cold and one in a warm place and note results. Earth and sky.—Study the appearance of fields, hills, valleys, streams, rain, frost, snow, and wind. Arithmetic and language in the first and second years should largely grow out of nature study.



## DRAWING AND CONSTRUCTION WORK.

### *General Suggestions.*

It is difficult to prescribe a course in drawing and construction that will be suitable for all schools using this manual. The ability of the teacher to give instruction in drawing, the amount and kind of material that can be procured, the time available for the work, or the supervision it will receive from some responsible director, are all elements entering in to modify the problem. It will be understood, therefore, that the following outline is meant to furnish suggestions to the teachers rather than to prescribe a hard and fast scheme to be followed rigidly. The sketches and illustrations are meant to be typical, as it is obvious that it would be impossible to illustrate fully every suggestion that is made.

While there may be difficulties in the way of giving instruction in drawing in many places, yet every teacher should attempt as much of it as can be done. Some progress will be made no matter how little, at the very first attempt, and increasing progress can be made thereafter. Teachers are urged to make the trial.

The aims in teaching drawing are: (1) to train the pupils to habits of accurate observation of form and color—to see things as they are; (2) to train the hand to reproduce the form of the thing just as it is seen; (3) to train the esthetic sense to a true appreciation of the beauty and harmony of form and color as seen in painting, sculpture, and architecture.

It must be borne in mind that drawing is a form of expression. Ideas may be expressed in language, (literature, etc.) tone (music, color (painting), or form (sculpture and architecture). Drawing is a combination of the two latter. It is an expression in form or in color, or both, of what the eye sees, or what the mind conceives. As any other form of expression it needs to be cultivated in order to realize its best development.

*Materials.*

Manila drawing paper, white, gray or tinted may be used and can be secured in packages of 100 sheets. The stock sizes are 9x12 and 6x9. Special sizes can be secured if necesssary. Good drawing paper can also be had in pads or tablets, the sheets being detached as they are used.

A good drawing pencil with soft or medium hard lead, and erasers or art gum, will be necessary for pencil work. Children should be taught how to sharpen drawing pencils so as to get best results in the work, and not waste pencil. (The Dixon, Eagle or Prang drawing pencils will be found suitable.)

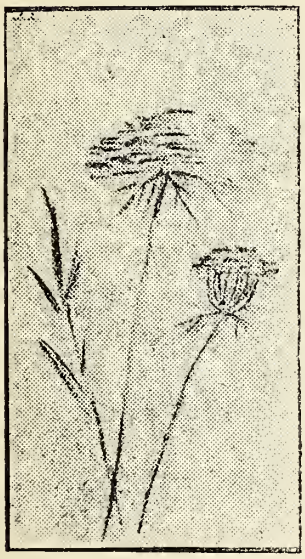
Water colors may be secured with from four to eight colors in a box. Those who wish to teach pupils to mix their colors as a part of their work will choose a four color box containing red, blue, yellow and black. All other colors can be made from these primary ones by proper combination. Those who wish a variety of colors without having to mix them will secure the six or eight color boxes. Prang, Milton, Bradley, Devoe and Reynolds' colors are good; and are put up in tin boxes with brush included.

The Dixon crayons, crayograph by the American Crayon Co., or crayola by Binney and Smith, are excellent for color work in the lower grades. They are put up with eight colors in a box; red, orange, yellow, green, blue, violet, brown and black.

Models for drawing can usually be found without difficulty. Fruits, leaves, vegetables and flowers can be used in season. Trees, either as types, or as individuals, can be made use of at all times. Vases, boxes, dishes, water buckets, tin cups, bowls, etc., can be secured from the homes of the pupils. When drawing, the model should be placed in the clear view of the pupil and he should draw it just as it appears from his position. For this reason the drawings of the same object by the different pupils will not all be alike. The same model may be used more than once by changing its position. Small models, as leaves and grasses, may be pinned on paper so

as to make them clearer, and several of them may be placed in the room so as to be seen easily by all pupils.

In drawing, first sketch the general outline of the object in soft gray lines; add the details afterward.



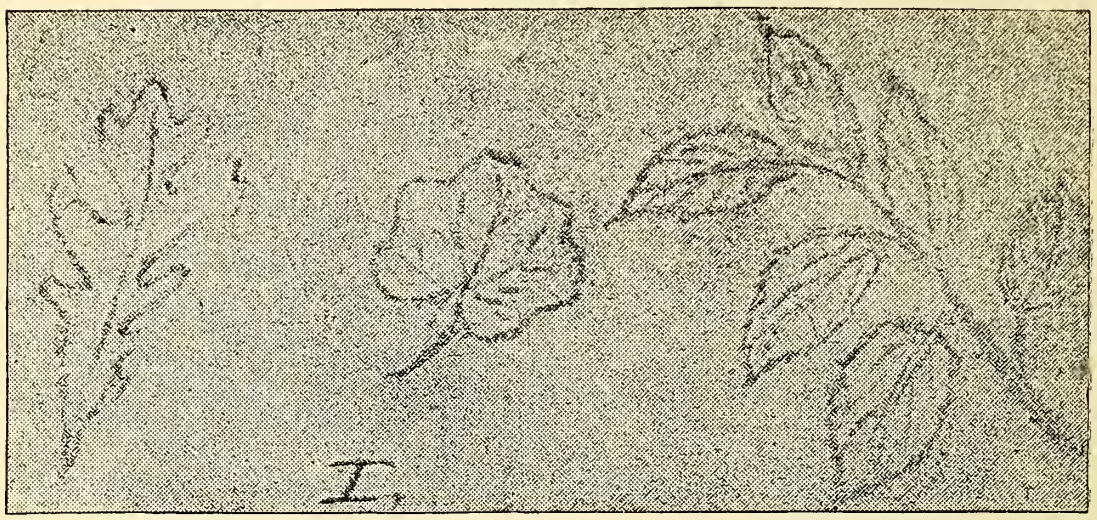
*Grades One, Two and Three.*

The forms with which children are most familiar are those of natural objects, as leaves, grasses, flowers, bushes, weeds, etc., hence, work may begin with some of these. Have pupils make simple sketches of single objects placing object in good position and light before them. Have them study the form. Pupils must first be taught *how to see objects* and then *how to reproduce* what they see. Develop parts, showing relation and proportion to each other. Sketch the object lightly. Use either crayon, pencil or chalk. Do not aim at exact imitation at first. Free expression, even if at first crude, will eventually bring best results.

Show pupils where to place drawing on the paper so as to secure proper arrangement and proportion. Note this carefully until pupils habitually locate drawings properly on paper. Large, free drawing should be encouraged.

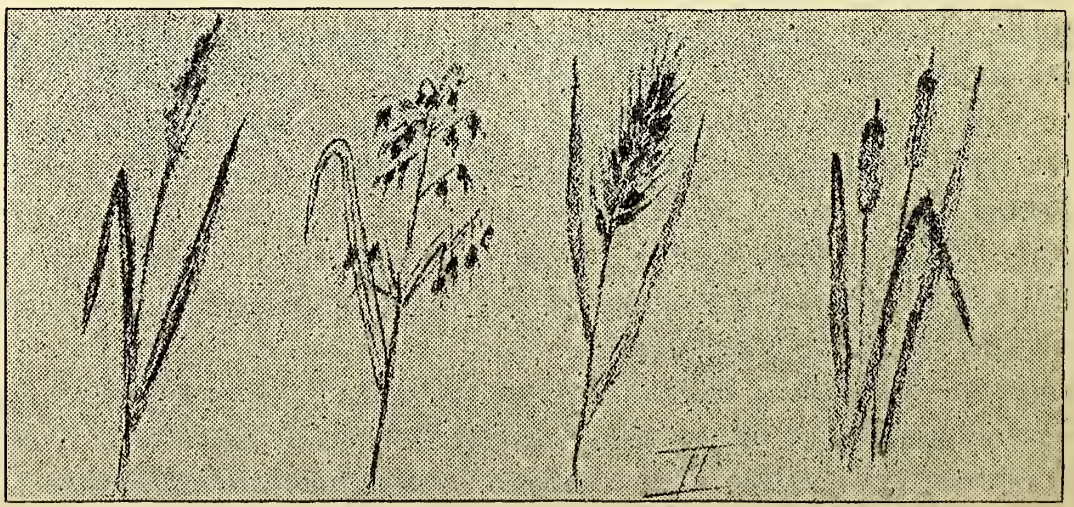
*Leaves and grasses.* Draw leaves of trees. At first select leaves of regular, simple outline, then, as pupils acquire more skill, those of less regular outline, and finally compound leaves, or sprays of leaves. Have pupils study the form of the leaf, noting difference of form in maple, oak, chestnut, beech, hickory, etc. Help them by questioning to get clear idea of size and proportion. Sketch the

form with light free strokes. Give attention to placing sketch in proper position on paper and do not accept small cramped drawing. Treat seed bearing grains and grasses in the same way.

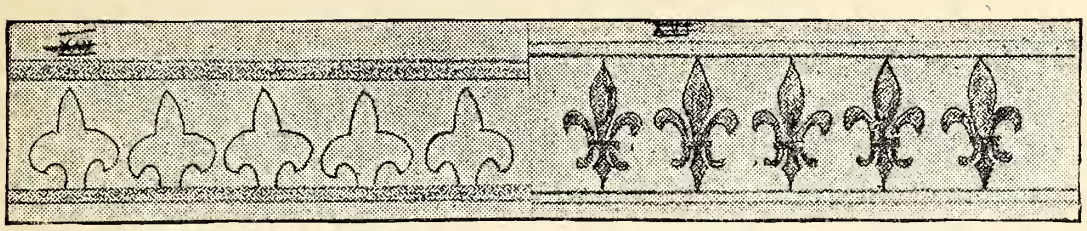


For color work, leaf outlines may be colored with crayola or crayograph. This is especially suitable for autumn when various colored leaves are easily secured. Try to imitate the natural colors.

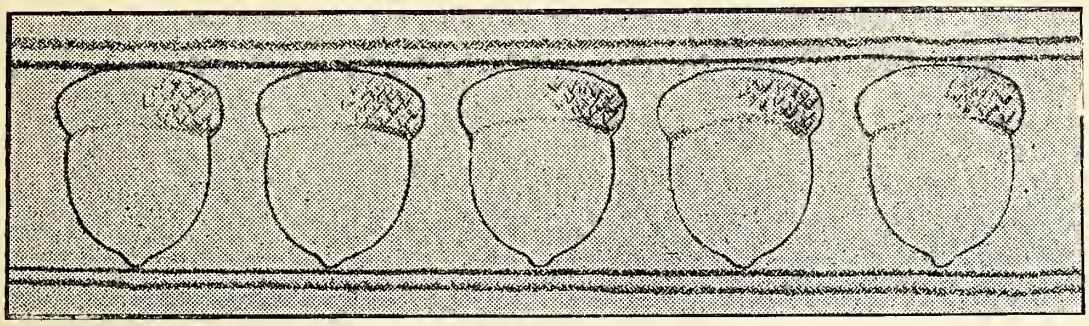
For construction work cut leaf forms from paper. Fold paper so as to cut both margins alike. These forms may be used in making border designs by reducing to proper size. Cut the pattern from paper and use it mechanically, otherwise the uniformity of parts will be lost. These designs may also be colored. As children naturally tend to the use of strong, bright colors, teachers will have to show that lighter tints are really best.



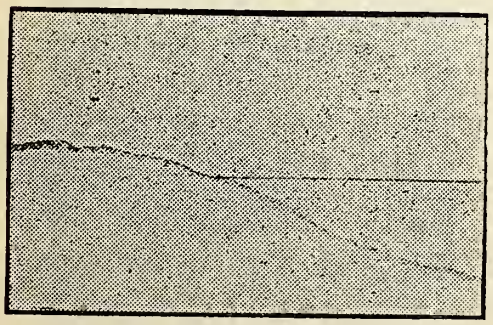
*Landscapes.* Begin with very simple studies of the sky and ground. Get children to place horizon line properly, always above

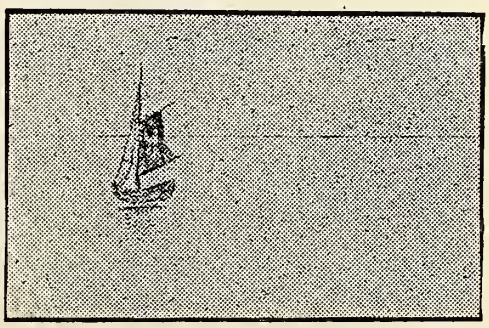


or below center of the paper. Make color studies of the sky. Note its color at different times of the day and on different days. Are its colors different at different seasons of the year? Color as nearly as possible like colors observed. What colors do pupils see, and



where are these most vivid? Introduce the setting sun and note colors again. Outline some objects on the ground; as a tree. Make scene showing ground, water and sky; place a boat in the water. These little scenes can be modified in a variety of ways and used in making folders, booklet covers, or calendars.





*Work for sepcial occasions.* Drawing can be correlated with many of the special days observed in the school, or with the months and seasons. Almost every month has some special day to be observed. For Hallowe'en the pumkin and Jack'o lantern are appropriate. Also the Japanese lantern and witches riding broom sticks. These may be colored, cut out and mounted as construction work.

November brings Thanksgiving. Pupils may prepare booklets

decorating cover with turkeys, etc. More advanced pupils may add pictures of the Pilgrims in costume, log cabins, Puritan hats, etc. In higher grades this work can be correlated with English work. Write story of the Puritans in booklet and illustrate with small pictures, or decorate with appropriate cover design.

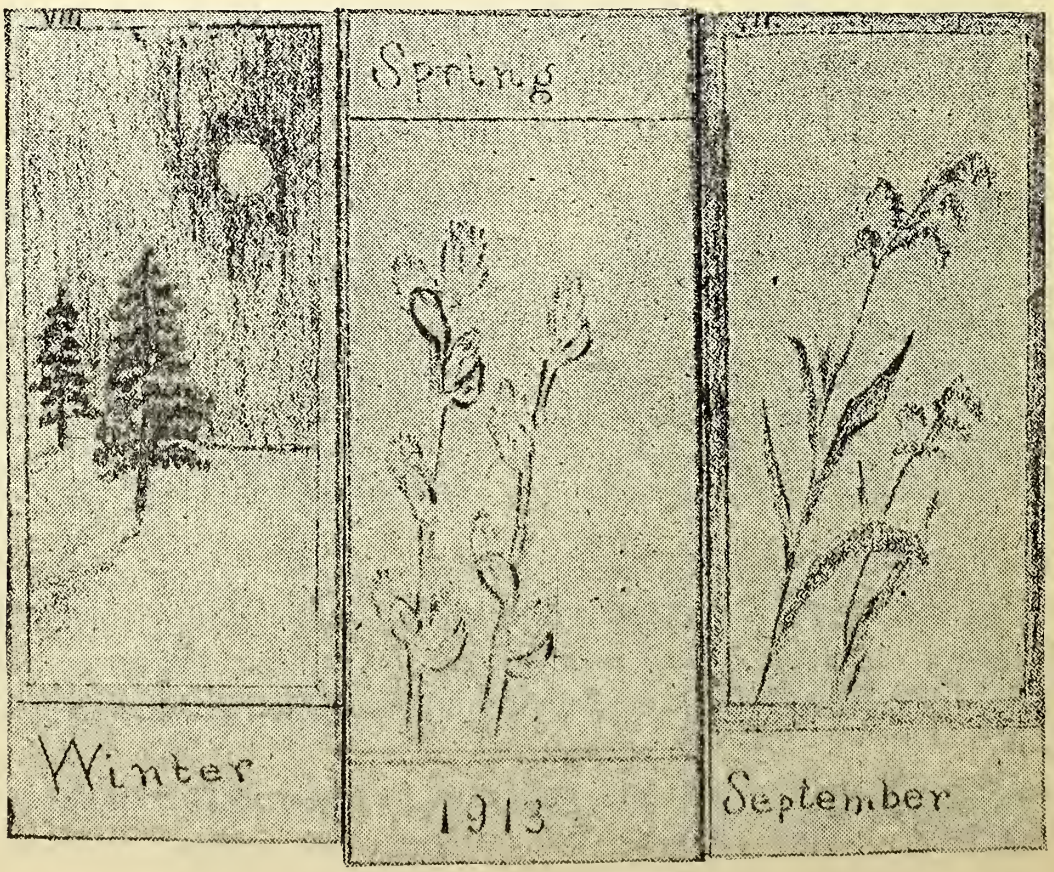
For Christmas have pupils make calendars, decorating with holly leaves and berries, Christmas tree, fire place or with winter landscape or snow scene. Many appropriate little illustrations will suggest themselves to the teacher. Many good suggestions can also be secured from the primary school journals.

St. Valentine's Day calls for hearts, arrows, etc. These may be worked out both in pencil and as construction work.

Other days that may receive special attention are Washington's and Lincoln's birthdays; Easter; Arbor Day; Memorial Day; and Flag Day.

The autumn months can be represented by appropriate flowers, a cornfield, etc.; the winter months with winter landscapes and snow scenes; the spring months by buds, flowers, leaves, etc. These can all be used in folders, booklets and calendars.

Calendars for the month can be made upon the blackboard, using various designs and scenes for decorative purposes.

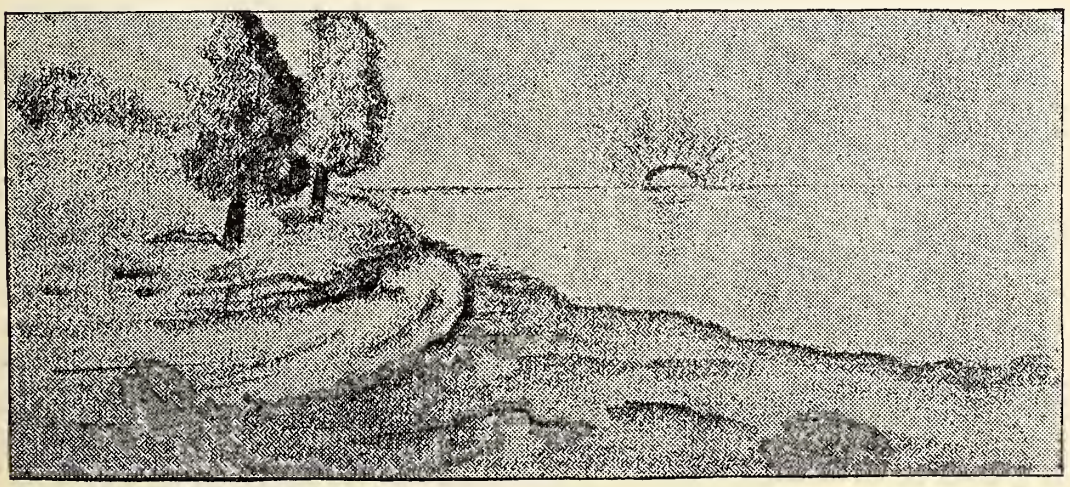


*Fourth, Fifth and Sixth Grades.*

NOTE:—The remainder of this outline is merely suggestive as the Outline of Studies does not call for Drawing and Construction work above the third year.

The work in these grades will follow largely the suggestions for primary grades. More advanced work will, of course, be attempted. While in primary grades simple forms furnish most models, in these grades more complex exercises may be undertaken. Color work should be continued by the use of the crayola, or water colors may be substituted for the more advanced pupils. Continue work on grasses, flowers, trees and landscapes.

In landscape work introduce more of detail than was suggested in the primary grades. Hills, trees, water, and simple objects in near relations to these may be included.



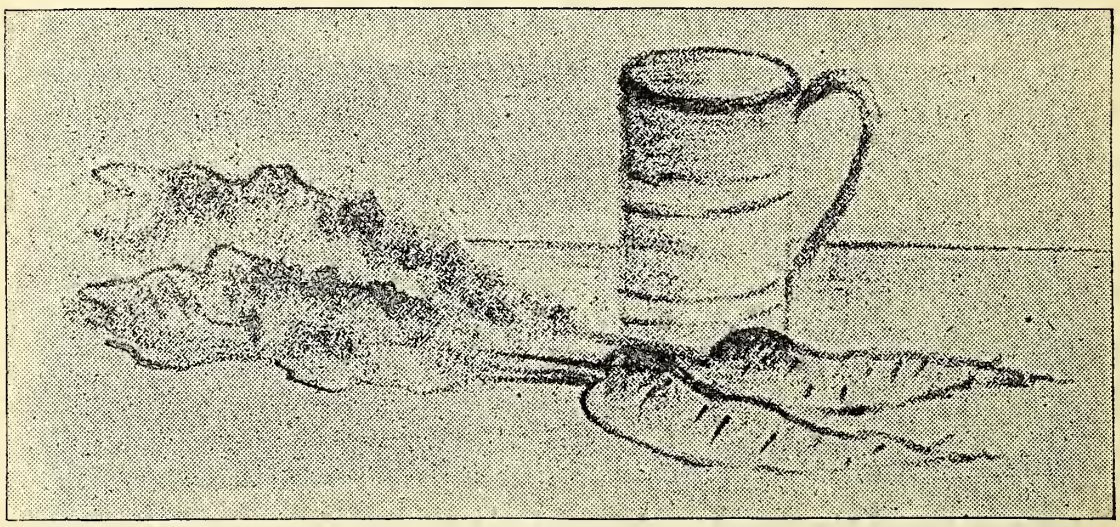
Continue studies in color tending toward soft tones and shades. Practice on combinations of colors as red and green, violet and yellow, blue and orange. Make a color scale, giving three tones for each color; light, medium, dark. Most work will apear to best advantage when done in medium tones.

Continue work in design making use of conventional units. These are mostly derived from leaf forms or flowers. Cut the unit from paper and using it as a pattern outline as many times as necessary. To have the unit alike on both sides fold the paper and cut both sides at the same time.

Design is one of the practical applications of drawing and may be worked out in a great variety of forms. Pupils may make any number of border designs using a drawing of an actual leaf, or

flower, or a spray of grasses. Generally, however, designs are made from conventionalized forms of leaves and flowers. The accompanying designs are from conventionalized forms. Make a design for wall paper.

Pupils may also begin to draw some of the more common fruits and vegetables. The banana, apple, pear, melon, cherry, peach, berry, pumkin, beet, radish, tomato, carrot, onion, cucumber, potato. Color all these fruits and vegetables as nearly natural as possible.



Work from still life models may be begun in these grades. Use simple objects at first. Study form and position. Get a clear conception of the shape and proportion of the object before attempting to draw it. While time must not be wasted in useless inspection, on the other hand it must not be wasted by drawing before the form is clearly understood. Get a clear concept of the form, then draw it.

First lessons on form should be taught from the board. The teacher can thus show pupils how to go about the work.

*Seventh and Eighth Grades.*

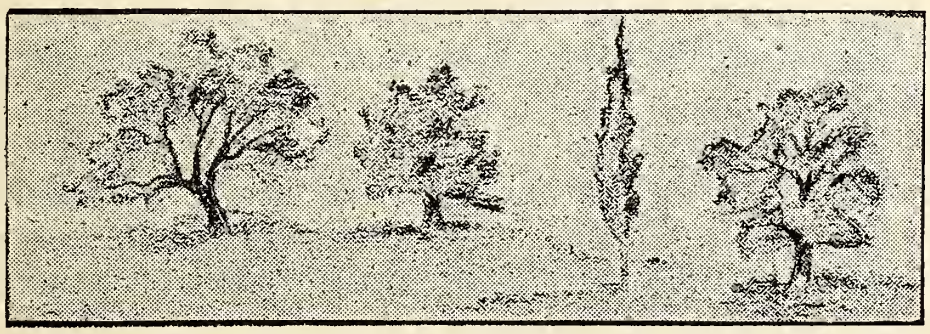
Draw from larger objects than those used in intermediate grades. Study light and shade. Study objects first at the level of the eye, then below it. Draw bowl or vase on table or stand. Notice position and draw table line. Note direction from which light comes, observe high lights, shade and shadow. Combine objects in groups, placing side by side, then one slightly in front of

the other. At first use objects of the same kind, then different kinds; as two apples, two bowls or vases, then apple and banana, carrot and potato. Draw from real objects.

Landscape work should be continued. Select some desirable view from the school house window and reproduce it. Do not include too much, a bit of woodland, a brook passing through woods, a country road bordered with trees, a succession of hills, the skyline over a broken range of hills; the lane to the cattle pasture, etc.

In drawing sketch with road, or fence in it, attention must be given to perspective. Lines approach each other in the distance. Study a box, or book, or house for this affect. Notice apparent approach of rails on a railroad. Apply the principle to landscape work as well.

Study trees. Learn type forms of maple, oak, elm, poplar, sycamore, birch, hemlock, pine, spruce or such others as may be accessible from the school or *in the neighborhood.*



**PICTURE STUDY.**

As an aid to the development of the sense of beauty, it is well to study some of the pictures of the great artists. Picture study should be a part of the work in each division of the course. Care must be exercised in the beginning to select pictures that appeal to children. Again the principle of *simplicity* must be borne in mind.

Pictures for first grade should usually be those that suggest a good deal of action, or those suggesting matters clearly within the child's own experience. Such pictures are always easier of interpretation. As the pupil's experience widens and he has learned better how to interpret them, pictures that are more difficult may be chosen for study.

The value of picture study will be heightened by studying the painter at the same time with his picture. Who was he? What can you find out about his life? Who were his friends? What kind of pictures did he prefer to paint? Was it easy or hard for him to achieve success? Why did he paint the picture you are studying? What were the circumstances under which he worked?

All this may be worked up into a story in the English class and may be given orally; or, better still, written into an essay and a copy of the picture mounted on the page.

There are two elements in picture study—observation and interpretation. Observation, of course, takes into account all the laws and rules of art and judges of the artist's technique. Interpretation—looks for the meaning of the artists' work—what is its life lesson? The artist means to teach something; what does this particular picture teach? How is the lesson shown? Great pictures appeal to the deeper emotions of the human soul.

Very good pictures for study can be secured from the Perry Picture Company, Malden, Mass., for one cent each. Larger and better prints can be had at five cents each.

A very good way to secure some larger pictures for study is to buy some of the better pictures and have them framed and hung in the school room. This can be done by devoting the proceeds of some entertainment to this purpose, or by having some society or well-disposed patrons donate them. Good pictures in the school room have a very wholesome effect on the character of the pupils and on the discipline of the school.

Pictures for study in primary grades:

Feeding her Birds.—Millet.
First Steps.—Millet.
Hiawatha.—Norris.
A Helping Hand.—Renouf.
Can't you Talk.—Holmes.
Will you Play With Me?—Peel.
Children Sailing Their Boat.—Israel.

For intermediate grades:

Shepherd and his Flock.—Bonheur.
Monarch of the Glen.—Landseer.
The Watering Place.—Gainsborough.
The Balloon.—Dupre.
Return to the Farm.—Troyon.

Dignity and Impudence.—Landseer.
Washington Crossing the Deleware.—Leutze.

For grammar grades:

Saved.—Landseer.
Sir Galahad.—Watts.
Departure of the Mayflower.—Bayes.
Song of the Lark.—Breton.
Dance of the Nymphs.—Corot.
The Angelus.—Millet.
Lincoln.—St. Gaudens.

## MOTION SONGS AND GAMES.

### *General Suggestions.*

Motion songs and games are always interesting and attractive to children and the teacher can save time by combining, to some extent, the reading and singing lessons.

Nearly all rhymes and poems taught in the primary, first, second and third grades are set to music easily obtainable, and the children love to sing words they have learned to recite.

A song should be given the same expression in singing it that would be given to the same words in reading them correctly. For example; "Jingle Bells, Jingle Bells, Jingle All the Way," should be sung in a fast, bright, light, airy manner, while "My Country Tis of Thee," should be sung slowly, calmly, majestically.

A stop for breath should only be made at the end of a phrase or where it will in no way interfere with the meaning of the words. A good example of this can be found in the last lines of "Lead Kindly Light". They are often sung "Which I have loved (breath) long since and lost awhile." They should be sung "Which I have loved long since, (breath) and lost awhile.

A breath should *never* be taken between the syllable of a word

The vowel, or the vowel combination tone of a word should be held the value time of each note—while the consonants in every word are *always* pronounced very quickly. For example, in "Home Sweet Home" the vowel tone in 'home' is held the value time of the note given—and the 'me' is pronounced very quickly—It is often sung, "ho-um"—which, of course, is a very grave error.

In words where there is a vowel combination, great care should be taken to hold the vowel combination tone in the word, for there is always a tendency to make these one syllable words sound as

though they were two syllables. For example, tear, year, should never be sung te-ur, ye-ur, but the vowel combination tone 'ea' should be held the value time of the note and the 'r' should be pronounced very quickly.

The following outline for teaching a rote song will save the teacher much time and strength. The children will know the song before they have ever really sung it. The old way of teaching a song by singing one phrase over and over is to be especially avoided.

First, teach the words of the song until the pupils can repeat them easily. If not familiar with the words and idea of the song it will be difficult for them to follow the melody, as sung in the proper time and no song should ever be sung to the pupil out of correct "time" or speed.

The second step in learning the song should be for the pupils to listen carefully and attentively while the teacher sings the song to them very softly—being careful to have the tone clear, sweet and with no "nasal twang." After the children have listened to the song several times they may be allowed to move their lips and "pretend they are singing" or "play they are singing" with the teacher. This will train them in the important idea of watching her mouth as she sings the song for them. When this is accomplished satisfactorily the teacher should allow the children to sing with her, very softly; always softly and sweetly—since a loud nasal or throaty voice cultivated in the small child will cling to it through life and probably keep a really fine natural voice from developing.

A great help in teaching children to sing sweetly, softly and clearly will be to correct the child's way of talking, if at all harsh, nasal or too loud. Here again reading and singing go hand in hand. People often fail to realize how much they lose or gain in personality by their speaking voice. One can recall having known many really superior people who were unattractive personally because of never having taken the trouble to overcome a high-pitched, loud, nasal or otherwise unattractive voice.

Pupils should be allowed and encouraged to sing alone, so as to overcome their natural timidity in regard to expressing themselves in song.

*First Grade.*

The old motion songs "Ball for Baby," "Shoemaker Song,"

"Thumbkins says, I dance," "This is the Dolly that I Love Best," "Down the Long Highway to Santa Claus Land," are always new and interesting to each boy and girl in turn as they start to school. Nearly every large publishing house issues a book of "Motion Songs and Games" from any one of which can be selected work to combine with the songs and games given in the Congdon Song Books.

## WRITING.

The aim should be to train every child to write a neat legible hand with facility. This aim can be accomplished only through a persistent drill throughout a number of grades. Proper materials, position, and movement deserve especial attention in the lower grades. Let it be understood that this subject in the primary and intermediate grades should have a regular place on the program. If not a daily recitation it should be as often as time will permit. The class periods should not be fewer than three per week.

*Materials:* For the larger part of the first year the blackboard and crayon furnish the best materials for the pupil's practice. The exercises should be large general forms such as demand the development of the larger muscles. The slate is objectionable in all grades. After blackboard drills use practice paper of good quality; use copy book No. 1, and exercise book for other written work. A broad smooth pen with large straight holder tipped with cork or rubber—the metal tip holder should not be used—a large pencil with good smooth lead, good non-corrosive ink; the desks for writing as well as for all other work should be adjustable. If for any cause the pupil must occupy a desk not suited to his size he should be allowed to change his seat for the writing exercise.

*Position:* The pupil should sit either squarely in front of the desk or with the right side just a little nearer to the desk than the left side. The feet should rest flatly upon the floor. The body should incline forward from the hips. The head should not incline to either side, and the shoulders should not droop. The left arm should be placed upon the desk; the right one should rest upon the desk upon the muscle of the forearm and the tips or nails of the third and fourth fingers; if the arm is unhampered by clothing this will give an opportunity for a free easy movement.

*Movement:* The free use of the muscles is essential in order to attain the aim as given above. Large spaced paper—arm off desk—

later arm rested. Much practice should be given in moving the arm out and in the sleeve without slipping the sleeve on the desk. The object should be to gain control over the muscles of the arm.

*Method and Subject-Matter:* In the primary grades the pupils should learn to make letters and figures upon the board. Towards the close of the first year or the beginning of the second they may be allowed to use paper and pencil. It is well here to give some drill upon the up and down straight line exercises, also upon oval exercises. The teacher shouold place models upon the board and call attention to the movements necessary to make the same. After some skill has been attained in these simple exercises and a fair conception of the form of the letters and figures acquired, coarse pens and ink should be used instead of pencils.

After this, much attention should be given to the correct forms of letters and to practicing such exercises which will contribute to the execution of the same. Practice upon the straight line, the right curve, left curve, the loop, the upright and elongated ovals. The copy in the copy book should be referred to as a test of the work already done; the copy to be imitated by the pupils should be placed upon the board by the teacher, and so emphasized that the pupils will have in mind an image by which to direct their own work. In the upper grades more attention should be given to word, sentences and page writing.

Every writing exercise should be carefully planned and should have an aim. For example, the teacher may say, in any grade above the third let us find out more about the correct form of *a* and how to make it. The teacher then writes *a* upon the board, calls attention to its curves and straight lines and the movement of the muscles necessary to make it. The pupils may then be required as a part of the preparation to make a few straight lines and curves; after this the pupils should attempt to execute the correct form. At times during the exercises the correct printed form may be passed to the pupil so that he may verify his work. At closing the teacher should ascertain whether the pupil has a better mental picture of the letter than he had at the beginning. This may be done by asking the pupil to state what points he especially tried to improve during the exercise.

The copy books now in use in the schools will be found to contain many valuable exercises and suggestions. As has been said let the teacher use the copy to test the accuracy of the work already done rather than as a guide. Place the copy on the board and

have the children get a mental picture of the form of each word; then let them execute the form and compare with the copy in the copy-book. The copy in the copy-book may be covered with paper or paste-board while the pupil executes his work; then it may be removed for comparison.

## SECOND YEAR.

### Reading (History and Literature.)

In the second year observe the directions of the first year. Use the blackboard, pictures, drawings, objects and conversations to provide clear images, ideas, and meaning for the children. The work done in the first, second and third grades will determine, for the most part the facility and effectiveness with which children will read later in school and in adult life. Do not accept any reading unless the pupils have a clear notion of the meaning. To fail to observe this is to impair the mind of the child.

The adopted second reader and one or more readers of equal grade should be completed this year.

*Seat Work:* All seat work should have a definite end in view and be inspected by the teacher. Cards with sentences that may be arranged to make a story and cards with words to make sentences may be used. The children should illustrate the stories by drawings on blackboard or on paper and by cuttings from paper, etc.

*Word Study*: Begin with simple breathing exercises. Then pronounce short words with long vowel prominent by pronouncing the word slowly. In this way find the elementary sounds and letters of easy words. Let the word study of sounds and letters be in separate period from the reading.

*Spelling:* Make lists of words used by the children in their writing, such words as give some difficulty in spelling. Have the pupils study these short daily lists of five or six words and write or spell the words orally.

*Literature*: In the first and second years the literature and stories should for the most part be told or read to the children by the teacher.

The following books and selections may be used in the first and second years:

Bryant—How to tell Stories to Children. Houghton, Mifflin Co., $1.00.

Bryant—Stories to tell Children. Houghton, Mifflin Co., $1.00.

Dopp—The Tree Dwellers. Rand, McNally, 45 cents.
O'Shea—Six Nursery Classics. Heath & Co., 20 cents.
Stevenson—Child's Garden of Verse. Flanagan, 40 cents.
Williams—Classic Literature. American Book Co. Book one for primary grades 22 cents, book two for primary grades, 25 cents.
Bradish—Stories of Country Life. American Book Co., 40 cents.
Dopp—Early Cave Men. Rand, McNally, 45 cents.

### NATURE STUDY.

Suggestions for the second year's work are given in connection with the first year's work which should be consulted.

### DRAWING AND CONSTRUCTION WORK.

See suggestions as given for this work in the first year.

### MOTION SONGS AND GAMES.

Review the motion songs and games used in the first year. Songs from the Congdon Music Primer can be supplemented by such songs as "Land of Nod," "Baby's Boat a Silver Moon," " Little Bo-peep," "Little Boy Blue," etc. These songs may be further supplemented by singing some of the poems taught in these grades which can usually be secured from any good publishing house or by applying to the State Department of Schools. Children in this grade love to sing such songs as "My Country 'Tis of Thee" and "The West Virginia Hills."

### ARITHMETIC.

*General Suggestions.*

It is quite generally admitted now that no formal recitations in arithmetic should be conducted the first year of the primary grades. The pupil's experience in play and in his other work in the school room, if the teacher exercises some care, is sufficient to give him such a working appreciation of number, as, with greater age, will enable him to do nearly, if not quite, as much during the second year as during the first two years in formal number work.

As we advance in the grades, the teaching of any process should begin with a problem which can be thought out by the child, and much oral work should precede written work in the introduction of a new topic. Definition and rule have small value in initial

help, and should be omitted from the lower grades. Problems should be solved orally whenever it is possible, and should be drawn from the interests and experiences of the children. No set forms of analysis or explanation should be required. In general, the clear thinking of a problem with the correct result embodied in good English, is all sufficient. The fundamental operations should be so thoroughly mastered that their mechanics will never retard thinking. Intelligent drill is absolutely essential—the teacher being, however, a master of drill, and not a drill master. Five minutes spent each day in drill work in making rapid number combinations, is very valuable.

Clear thought may be secured by correlating the arithmetic work with other school work, with the home life of the pupils, and by using small numbers. Pupils should be taught to note carefully *what is given* in each problem and *what is to be found.* Doing this saves time and prevents trying various ways simply to get the answer. Ordinarily, very little ,if any, home work should be assigned to pupils below the fifth grade.

All principles, whose use in actual life is restricted to specialists, and all problems based on those principles, should be omitted from the course of study for an elementary school.

Perhaps most teachers can best teach correct principles by following a good text-book closely as a guide, and supplementing this with problems, the answers of which have not been given the pupil. Any radical departure from the general plan of the text should be carefully considered. But be sure to teach principles and processes and not so many pages of the book.

Make frequent use of the blackboard, but use pencil and tablet sparingly. It is better that a pupil go to class with his preparation in his head than on his tablet.

### *Number Work in Second Grade.*

All mathematical topics of this grade are taught in connection with the other activities of the grade, such as drawing, construction work, nature study, plays and games, songs and collection and distribution of material. So far as the children are concerned, the form and number work is taught incidentally, but in the mind of the teacher it is thoroughly organized, both as to the truths to be presented and the time and method of presentation.

Most pupils will have learned to count; some attention should be given to those who have not. Objects are counted, using cardi-

nal numbers. They are compared to develop notions of inequality or equality. When the desire arises to know how much longer or shorter, larger or smaller, one object is than another, appropriate measuring units are used.

By comparison ideas are gained of the square-cornered solid, cylinder, sphere, square, oblong, triangular, and circular surfaces; straight and curved lines.

In drawing, measuring and cutting involved in making boxes, booklets, doll furniture and other construction work, the need for counting and many of the simpler combination and separation facts is felt by the children. The same is true, in a measure, of all other activities of the grade, especially in arranging for the playing of games.

Remember that all the work in this grade is to be taught incidentally with the activities mentioned above, and no book is to be given the pupils. One of the best books for the teacher to use as a guide in this grade is "First Journeys in Number Land," by Harris-Waldo, published by Scott, Foresman & Chicago.

*Writing.*

See suggestions under first year.

## THIRD YEAR.

### READING (HISTORY AND LITERATURE.)

In this year finish the adopted third reader and one or more readers of equal grade. Pupils should do silent reading under teacher's guidance. The oral reading should be clear and distinct.

Reading may be thought of as the valuation of words, assigning values to words. Have the pupils see that the meaning changes as different values are given to the words. The teacher should illustrate this by reading for the pupils.

*Word Study:* Simple breathing exercises. Elementary sounds practiced—a, i, e, a, o, the initial and final consonants p, t, b, s, m, n, g, word building with familiar sounds.

*Seat Work:* Study assignment made in class. Silent reading of supplementary books. Find whether pupils know alphabet. Make little booklets for dictionaries. Use some diacritical marks.

*Spelling:* Make lists of words used by pupils in their written and oral work. Have the pupils study the daily lists of six or eight

words and use them in sentences. Have written and oral spelling occasionally.

*Literature*: The oral literature and stories should continue in the third year. The teacher's telling stories and reading literature to the pupils should decrease and the pupils' reading increase during this year. Care should be taken that the literature is sufficiently easy for the pupil to read. The child's mind must not be taxed with the words and phraseology.

*Composition:* From the first year in school the children should be given abundant opportunity to tell the stories they have learned and to use correct English in all they say or write in every lesson. In the second year this kind of work should be increased somewhat. In the third year there should be considerable amount of oral and some written composition. The manner of telling the stories and reciting all oral work should be supervised with care. The teacher should prepare the pupil for the language book in the fourth year. To this end the teacher should introduce some of the same kind of work the pupil will have in the fourth year. This work should be simpler than that in the text book.

The following books may be used by the teacher and pupils for the stories and literature:

Burt—Poems Every Child Should Know. Doubleday, Page., 90 cents.

Mabie—Norse Stories. Dodd, Mead & Co. $1.80.

Baldwin—Old Stories of the East. American Book Co. 45 cts.

Dopp—Later Cave Men. Rand McNally. 45 cents.

Kipling—Just So Stories. Doubleday, Page & Co. $1.20.

Williams—Choice Literature. American Book Co. Book 1 intermediate. 28 cents.

Baldwin—Fifty Famous Stories Retold. American Book Co. 35 cents.

Norton—Heart of Oak books. Heath, Book 3, 20 cents.

## NATURE STUDY.

### *Third and Fourth Grades.*

Nature study and home geography should be the same course in the third grade. Both should be on an observation basis, and the materials of home geography are essentially nature material. Houses, streets, land surfaces, drainage, hills, streams, transporta-

tion, maps and local conditions all furnish excellent topics for nature study.

(1). How we are sheltered; study the materials used in building our homes—sources and places of preparation.

(2). How we are clothed; study materials of clothing, sources and process of manufacturing.

(3). How we are fed; this general topic furnishes an opportunity for a study of all the farming interests, implements for cultivation and means for transportation. As you study each of the above, visit all the local industries—the flour mill, the saw mill, the store, the glove factory, the brick yard, and others.

Make weather observations. Observe the effect of the change of seasons upon the occupation of the people of the community. Study the work of running water in cutting gullies in the hill sides and valleys, in depositing their loads and forming deltas. Go to stream, study *life*. Map it.

Geography will be taken up at the beginning of the fourth grade so the class in nature study may pursue the following topics:

*Animals*: Note how animals are prepared for cold weather, also for warm weather. Study the sheep, the cow, the horse; structure, habits, food, and disposition; relatives of the sheep—goats, deer, antelope. Cattle and sheep ranches; uses to man. Study hibernating animals such as the ground-hog, bear, raccoon, mole. Earth worms and their uses to man. Birds and bats and their importance to the farmer. Household insects; habits, life histories, and methods of exterminating fleas, lice, and bedbugs; make a special study of the fly—its development, manner of life, where it feeds, how it may carry disease germs, and how dangerous it is to man; teach in detail methods of exterminating the fly.

### Drawing and Construction Work.

See suggestions for this work as given in the first year.

## NUMBERS.

The arithmetic facts learned incidentally in the second grade are here extended and the method of presentation continued.

If the book is put into the hands of the pupil, the first three chapters of the primary book of the adopted text are to be completed in this year; the first chapter, most of which will already be known to the child from the work of the previous grade, will

take but little time, and this and the second chapter should be finished in the first half-year; the third chapter in the remaining half of the third grade or year.

All tables to and including tens, both in multiplication and division ,are taught thoroughly along with multiplication and short division; simple factoring can easily be taught with division and multiplication as presented in the text. Many opportunities present themselves for introducing small fractions.

If the following materials and articles are not already at hand, they must be secured; it is necessary to have these, or more, in order to present the subject of numbers with interest and facility in the primary grades; foot rulers ,marked to quarters or eighths of an inch, scissors, paste-board inch squares, at least one hundred inch cubes, a box of small rubber bands, splints, yard sticks, pint, quart, peck and gallon measures, cards about three by five inches for table work, and a quantity of sand, bran, corn, or some other convenient material for measuring purposes. Each pupil should have his own foot rule, and at least forty card-board inch squares.

The skillful teacher will find many ways to use the above materials, a few of which are here suggested.

Compare children as to height, compare the length of objects in the school room, and when the child has learned to count the inches on the ruler, have the comparisons already made, verified by actual measurement. Have the child to measure lines drawn on the board and to draw lines of definite length and verify with ruler. In using the measures of quantity have children to actually do the measuring, starting with the simpler ones and developing the subject. Cut strips of paper of various widths and lengths and have pupils to choose at sight sizes called for by the teacher or another pupil. Have pupils draw triangles, squares and rectangles and, also, build with small squares larger squares and rectangles. Teach the correct names of these plane figures.

By actual measuring solve such problems as the following: How tall are you? How wide is the door? How long and how wide is your book, etc.? (Measure in feet and inches.) Many such problems as these should be solved. It is well to have pupils estimate answer before solving. This trains them to observe closely and to judge accurately. Many interesting contests can be had where time offers opportunity.

Games, such as bean-bag, ring-toss and playing store, furnish many occasions for the thoughtful use of numbers. In these games

the score, or account, of each pupil, is computed orally by the pupil at first, and kept by the teacher on the blackboard. Later, it is kept by the pupil on the blackboard or on paper. Such exercises furnish excellent means for setting the formal machinery of numbers in action.

The result of work carried on as above, enables the pupil to read and write numbers of one, two and three orders; to read time by the clock to hour, half-hour, quarter-hour; to answer any of the forty-five addition and subtraction facts:

| | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 3 | 4 | 5 | 6 | 7 | 8 |
| 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 |
| – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – |

| | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 9 | 4 | 5 | 6 | 7 | 8 | 9 | 5 | 6 | 7 | 8 | 9 | 6 | 7 | 8 | 9 | 7 | 8 | 9 | 8 | 9 | 9 | |
| 3 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 8 | 8 | 9 | |
| – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | |

to make change within one dollar; to recognize related units of measure, such as inch, foot; minute, hour, day, week; pint, quart, cent, nickle, dime, quarter, half-dollar, dollar; to use the tables to and including tens.

Children should know the above mentioned forty-five number facts so well that when they see $\frac{7}{6}$ thirteen should appear, or they should think thirteen, just as, if properly taught in reading, they think of apple when they see the word symbol, and the combination $\frac{7}{6}$ should not enter into consciousness any more than the letters into apple; they should also know the tables to tens well enough to use them quite rapidly in performing operations, but, of course, more skill will be acquired as the pupil advances.

## LANGUAGE.

The language work of the first three years is mostly incidental, growing out of and connected with other things. In the third grade some slight reference is made to the language work under the subject of Reading with the paragraph heading composition. For a full discussion of the teaching of this subject see fourth year.

## WRITING.

See first year.

## FOURTH YEAR.

*Reading (History and Literature.)*

Keep in mind the fact that reading is a search for ideas. The study of sounds, letters, words, pronunciation, is only a means to reading. These unclassical phases should be at the minimum during the reading lesson. Word recognition is only a means; reading is rather looking through the words for the ideas and meaning which the symbols call up in the reader's mind.

In the fourth school year finish the fourth reader of the series in use and the equivalent of a supplementary reader of the same grade.

Plan your work to give variety. Use sight reading often. Bring to your school appropriate reading material you find in newspapers, journals, magazines and books. There are many ways to use the one article you have to good advantage. It is possible to provide for better motive, a thing rarely found in the upper grade reading recitation, than with the readers in use. One or more pupils may prepare the article to read to the class or the selection may be read at sight by passing it from pupil to pupil. In either case you have normal conditions, a search for ideas, by one who is presenting the symbols to the ears of a real audience.

The test of silent reading is the quick, accurate getting of the thought; of oral reading the test is the symbols presented to the ears of other people in such a way as to compel correct interpretation.

Seat work similar to that of the third year. Place questions on the board to guide study. Supervise the study of pupils to avoid waste of time and energy and incorrect habits of study.

Word Study:—Continue study of letters, sounds, combinations of letters and sounds, prefixes and suffixes, and booklets for dictionaries. By the end of this year the pupils should be able to use an elementary dictionary with accuracy and facility for the spelling and pronunciation of words.

### THE PIED PIPER.

Outline:

Setting of Story.
The Plague.
The Pied Piper.
The Bargain.

The Plague Removed.
The Broken Promise.
The Piper's Revenge.

*The Pied Piper.*

Aim.—To help the class to enjoy the poem and to read it with appreciation.

Preparation:—Read the whole poem to the class as dramatically as possible. Have the class look up new words. Give them meaning of "pied," "guilder."

Did you like the poem as I read it? Was there any humor in it? Where? Did these things seem funny to the Hamelin people? Whom did they blame for their trouble? What threat did they make? What do you think of the Mayor? Why did the "tap" frighten him? Tell me how the Pied Piper looked when he stepped into the room? What do you like about him? If you had been on the street when he blew his pipe what would you have seen? Why did the rats follow the Pied Piper? How did the Hamelin people act when the rats were drowned? How much money did the Mayor promise the Pied Piper? How much does he now want to pay? What excuse does he make? What do you think of the Mayor now? What revenge does the Piper take? What do you think he promised the children? What became of the Piper and the children? Did you ever hear the old saying "You must pay the Piper"? What does it mean? What lines do you like best? What lesson did the Hamelin people learn?

## NATURE STUDY.

See suggestions for third grade.

## PHYSIOLOGY AND HYGIENE.

*General Suggesstions.*

The work of the first years in this study should be almost exclusively pertaining to Hygiene, with the purpose of securing health and right habits of living in the child, rather than much formal knowledge of anatomy of physiology. It should not be made an attempt to crowd immatured minds with dead and meaningless names and terms and lists, but should be an effort to teach the child to live, in his work and play and rest, under right conditions, both as to his external surroundings and as to the internal

conditions of his mind and body. A weak, anaemic, stooping child who knows physiology is not much credit to any school; a strong, healthy and vigorous child who lives hygienically is a fine product of any system of education.

The subject is not asigned a place on the daily program during the first school years. It is expected, however, that some instruction can be given in connection with the work that is done under the heading Nature Study. In the 4th, 5th, and 6th grades one lesson per week should be given regularly, coming at one of the Nature Study periods, and it should be given on the same day each week.

During the first three years of school life, a considerable amount of work in the subject may be given, growing out of and connected with many other lessons and events of the school. As far as possible, from the very first year, the teacher should look after the child's habits, in everything that relates to his health, strength and growth. For instance, she should exercise continual care over the matter of seating the children; for it necessarily happens that, in many schools, the seating is illy adapted to the children in attendance. A seat or desk either too high or too low causes not only present discomfort, but often future disability or ailment. By judicious assignment of seats, or by some little arrangement for a foot rest, or by raising the seat a little higher, or by slight changes of work—by these and smaller devices the teacher can do much to correct these faulty conditions. Time needed for these things is sometimes for more profitably spent than it would be in hearing a class recite.

Then, even in the first year, children may be told in a simple way, that dirt is full of poisonous substances, and may easily cause disease. The child should be warned not to touch a person or thing that is dirty. Each school house should be required to have a basin and water always at hand, by which pupils who have dirty hands and faces may clean them. The youngest children should be taught something about the care of the teeth; for instance, that they should be kept clean; that it is dangerous to eat anything that is too hot, or too cold and that they should not crack nuts with their teeth, for danger of breaking the enamel; that as soon as cavities are discovered, or a tooth begins to ache, they should see a dentist.

From the very first, children should be taught to keep proper positions of the body. The head should be held up, and slightly back; the chin slightly drawn in and down, the chest thrown up and

out. It might be well, occasionally, at recess and other proper times, to have a little drill in proper standing. Call attention to the soldier's bearing for the children's imitation. Show the children a gnarled and twisted tree, calling attention to the fact that this condition was caused by the tree's being bent or twisted when it was young. Teach them to stand squarely on both feet, and to avoid a slouching position in which the weight falls principally on one foot. In some respects, the sitting posture of the child is even more important than that of standing. He should not be allowed to become slouchy, or to stoop too much over his work, or to slide forward in his seat, so that he sits on the small of his back, or to lean too much on one side.

The smaller children, even more than the older ones, need attention as regards the conditions that effect the skin, such as dryness, warmth, etc. Pupils should not be allowed to sit in a room with damp clothing on. They should be taught the danger of getting their feet cold, by wading in snow, water, etc. Do not, for the sake of discipline or other reasons, forbid children to dry and warm themselves at the stove. Pupils should be cautioned against cooling off too rapidly when warm from exercise. In the ventilation of the room, draft falling on pupils, should be avoided.

Probably the greatest hygienic sin the teacher commits against her pupils, is oftentimes in the matter of ventilation. The air out of doors is always the best air that nature has. Scientists are not altogether agreed, as yet, as to all the facts relating to the causes and effects of bad air in the school room; but there is absolutely no doubt that the air on the outside is the best air to be had, and should be brought into the room as freely as possible. Every teacher should make it a practice, occasionally, to step out in the fresh air, so that when she returns, she may detect the foul odor that always accompanies bad air in the school room, when it is there.

The teacher has less control, possibly, over the food of the child, and his habits of eating, than she has over many other of the things we have referred to. But the first years of the child's school life, is the time, above all others, when the teacher is in a position to secure the growth of some proper habits in this respect. In the cases where the child and teacher both bring their dinners, the teacher has an excellent chance to teach the child the importance of eating slowly and chewing his food very carefully. A great deal of tact may be needed as regards any reference to the kind of food the child gets at home; but the teacher oftentimes can emphasize the

value of the simple, wholesome sorts of food, especially for the child. Any teacher is doing the children a distinct good, when she discourages the child from eating much candy, especially the cheap and highly colored kinds. An excessive amount even of pure sugar is always bad for the child; and moreover, cheap candies very often contain substances that are actually poisonous.

*Work In Fourth Grade.*

In the set that is adopted for the schools of West Virginia the first two books, the Primer of Hygiene and the Primer of Sanitation, respectively, are issued either as separate volumes or are bound together in one volume. In either case it is suggested that the teacher should take the subject matter of the Primer of Hygiene for two years, beginning in the fourth grade.

The pupil need not be required to purchase the text-book but the teacher should have a copy.

Take one regular lesson per week, at one of the periods assigned to Nature Study. This should come on the same day each week.

The teacher should use the subject matter of from two to four pages for a talk or oral lesson. For instance the first lesson should cover the first three pages of the Primer. Where possible and practicable the matter and method there given may be supplemented from other sources. Pains should be taken, by appropriate questions and otherwise, to let the pupils participate in the lesson. The suggestions in fine print, following this and other chapters, should be heeded. In succeeding lessons each lesson should begin with carefully prepared questions by the teacher relating to what has preceded, either the immediately preceding lesson or such others as may be proper.

## ARITHMETIC.

Chapter four of the Primary book, adopted text, in the first half of this year, and chapter five in the second semester, should constitute the work in arthimetic.

Notation and numeration of numbers to three orders; Roman numerals; addition and substraction of whole numbers; multiplication with one figure and increasing to two and three figures; division the same; teaching of eleven, twelve and fifteen tables; cubic measure begun; much oral work; easy fractions, etc., all as presented by chapter four of the text.

In the second semester common fractions, decimal fractions, bills, and much work in general review, as outlined in chapter five of the text is to be given.

## LANGUAGE.

### *General Suggestions.*

To the teacher the problem of successful language work has three distinct phases, and the more clearly she sees and understands each of these, the greater will be her ease and pleasure in the work while it is in progress, and the greater will be the profit to the child from her instruction. These three phrases are:

(a). The Aim.
(b). The Materials.
(c). The Methods.

No teacher will gain much insight into the problem and much skill in language instruction without a great deal of study and experience, neither of which alone is sufficient, and each of which is most profitable while accompanying the other. The teacher is very earnestly urged, therefore, to illuminate and enrich her experence by thoughtful reading upon the subject, and to do as much of this reading as possible *while actually* engaged in the teaching. For this reason, the names of various books discussing language teaching are given elsewhere, with the hope that many of them will be sooner or later read.

### *The Aim.*

To his friends an dintimate companions the average child of school age can express with fairly adequate clearness and force his ideas and thoughts relating to those subjects upon which he has clear and distinct ideas, and in which at the time he has sufficient interest. From this we may draw some conclusions about the function of language work in the school.

Many writers state that is it one end of language instruction to increase the range of ideas, thoughts and interests of the child; this, it seems however, is not the aim of language instruction by itself. Such a growth or increase is naturally the effect of the whole school life of the child, as well as of his life outside the school.

It is not the aim of language work to increase the range of his mental life in general, but the aim should be rather closely limited to the effort to keep his capacity for oral and written expression

fairly well abreast with the growth and expansion that is constantly taking place in his mind from all other causes and sources. This involves quite a variety of effort on the part of the teacher; among others we find the following:

1. The effort to teach the principles relating to the development, selection and arrangement of his ideas about subjects in an orderly manner so as to train the child in the art of making an effective presentation of his thoughts relating to any given topic.

2. The effort to stimulate in various ways his growth in the knowledge and mastery of words, and to keep this mastery abreast with his constantly expanding ideas and feelings.

3. The effort to direct the growth of his habits as to the clear and definite use of words, and in the matter of selecting appropriate words.

4. The effort to direct the control of his habits in the selection and combination of the words he uses, according to the principles of grammatical order and agreement.

5. The effort to teach him the special principles relating to such mechanical devices as capitalization, punctuation, paragraphing, etc., and to direct his habits into the automatic and unconsious use of proper forms.

The teacher, then, should be constantly asking himself these five questions:

1. How can I teach the child to think connectively about a subject and to select and arrange his ideas orderly and effectively.

2. How can I assist in the growth of the child's command of words.

3. How can I assist the child in the matter of choosing from the words he knows those that will clearly, exactly and fully express what he wishes to say.

4. How can I assist the child to put his words together according to the generally accepted order and forms, that is to say, grammatically.

5. How can I best present to him, and train him in the right use of, the capitals, punctuation, paragraphing and other devices that are used in written work.

### *The Materials.*

In a school system sufficiently highly organized there are many reasons for believing that both greater economy and greater efficiency would result from having the material for language work

more largely selected from the other studies and interests of the child than it is possible to do at present. Since it is not possible to gather the language material from the sources mentioned, it is most convenient and satisfactory to have the material gathered in the language book itself. Therefore, the teacher usually will do well to take the material for the language lessons from the text-book as it is found given there. The material given in the present adoptions is of quite a high literary and artistic value, and on the whole is probably as good as such a collection could be.

The pedagogic test of the worth of language lesson material, so far as its effectiveness is concerned, however, lies along the line of its native interest and appeal to the mind of the child. The things that ordinarly have this interest and appeal in the right sort of way are the things that are in some way connected with other phases of his life. Therefore, anything relating to the other studies of the child, to his play and games, to his home life and personal relationships with many things, will oftentimes make a peculiarly strong appeal to him, and will be wonderfully effective as subject matter for these lessons.

So then the teacher should not hesitate to take the subject matter for some particular recitation from other sources than the offering of the book, in cases where she feels that she can thus secure a greater interest and a more ready response on the hand of the pupil. She should, however, be sure of its usefulness, as compared with what the text book offers, and she should work up her preparation as carefully, as that given by the text-book, has been worked out.

### *The Methods.*

To go very thoroughly into the matter of the methods of teaching English would require a whole book. So little can be said other than that the plan of the text-book itself is presumed to be the working out of a practical system of language instruction, which is what we ordinarily understand it to be. The care, the work, the interest and enthusiasm, and the judgment, that the teacher puts into the instruction, are very important things under methods.

But above and beyond these things there are one or two points that might be well called to the teacher's attention. The first of these is that the results and effects of the pupil's effort are very largely determined by his motive, and the best possible motive for the effort at language expression, as also of other forms of expres-

sion, is the perception of some need for the effort, and the consequent desire to make the effort.

A child will come home from a picnic and tell his friends very fully and effectively about the events of the day; the effect of his story, or what he conceives will be the effect, on his hearers in various ways, makes it seem to him a desirable thing to do. We do not usually think of it as being so, but the child, who is relating his experiences thus, is in reality having a very effective language experience. This accounts for the fact that many men who have had varied and rich experiences in life and are accustomed to narrate them, even if they have had little schooling, are more gifted in the art of language expression than others who have spent a great deal of time in schools.

Then, if we can interest the child in the subject matter of his language, and can make it seem a desirable thing to tell or write his thoughts, and can give him suggestions and instruction about the use of his ideas, and the use of the words with which he expresses these, we are getting down to the principles of effective language teaching.

*Work In Fourth Grade.*

The Book One, should be completed in the fourth and fifth years, the fourth grade covering parts one and two. The teacher should bear in mind that our text-books in English, for the grades, usually called language books, contain in many lessons various sorts of material. Thus some lessons contain a picture, or a poem, or a story, which is the basis of the lesson. In addition to this, they have questions or explanations to the child for his direction in the preparation of the lesson; and, furthermore, they may contain explanations or suggestions to the teachers regarding the conduct of the lesson. Therefore, in the matter of the assignment of any particular lesson, the teacher should always think over carefully the matter that she finds given in the book, under that lesson, and in her own mind should distinguish carefully the nature and purpose of everything given, and decide before the assignment of the lesson, what use is to be made of each part.

A definite amount of time should be taken for the explanation of the lesson to the child before he begins his preparation for the recitation. The teacher should never merely say that the class should take the next page, or the next section, or the next lesson; but she should have the children open their books to the desired place, and

should tell the child definitely what he is to do. If it were practicable, it seems that it would be much better if the teacher's book were printed separately from that given the child, so that the distinction between the different parts of the material in certain lessons could be more fully preserved. But since this is not possible, it falls upon the teacher to see that these distinctions are properly observed.

We will illustrate what is meant above by discussing some of the lessons that are given in the text-book. Take lesson one for instance. If the teacher happens to have a large copy of the picture that is given, or had any small copies to put in the hands of the class, it would be better to give this lesson without having a text-book in the class. First, call the attention of the class to the picture. After interest has been secured, let each child name something that he sees in the picture, and finally, ask some child to tell what the picture evidently is designed to represent, the children themselves suggesting names for the picture. In case they do not themselves get the right one, by proper questions they may be led to do it. In all of this work, it is evident that, in many instances, questions or the line of questioning would not be the same as that given in the book; and that in many recitations, the questions would not arise in precisely the same order. But the point to be emphasized here is that the lesson is essentially an oral lesson, and that it should never be assigned by merely telling the pupil to get the first lesson in the book.

Similarly, in several of the succeeding lessons the questions given, or other ones, should be asked by the teacher orally, rather than have the child read the questions from the book. After this is done, the class should be asked to tell the meaning required, to give the story or to copy the verses, or to do whatever else that the book suggests at that particular place. In lesson five for example, if you tell the child to take lesson five, as found in the book, there are very few children who will take the book and read the lesson over and do what is suggested to be done. For instance, very few children will take notice or think about a black cat, and then actually try to form mental images about the black cat, especially where a list of objects is named together. Evidently the teacher should take the objects referred to, one at a time and ask the children to think about them; and ordinarily the only circumstances under which the child will think about these objects, is when he expects to be given a chance to say something about them. Therefore the teacher perhaps should say, "I want each one in the class to think about the black cat, and tell me what he thinks about it," and thus on with the

other objects. Then at the proper time, she can call the attention of the class to the fact that when they have put a thought into a statement, the statement is called a sentence. Finally, as a written exercise, she may require the child to make sentences about five of the things named.

In such a lesson as No. 85, on page 72, most classes will possibly make a failure of the lesson if merely told to take lesson 85. However, let us suppose that the teacher either tells the story herself orally, or that when the class is called she says: "I want each one, silently, to read the story about Gellert." Then, by the use of the questions given in the book and other appropriate questions, she leads the child to see that at least three distinct things or incidents are told in the story. It would be well, next, to get each child to see what facts or statements make up each incident. After this is done, it is time then to have the child, for his seat work in preparation for his lesson, actually write the story, having him understand that each incident is to make one paragraph. The preliminary oral part of the lesson might be gone through with one day, at the conclusion of the previous lesson and during the last part of the recitation period; or it might be taken during the day in which the lesson has its own recitation. But the important principle should be observed that the preliminary and introductory part should be done with the class working with the teacher, and under his or her direction, and never by merely working independently with no further instruction than that they should take lesson No. 85.

Of course, many trained and experience teachers will apply the methods suggested, or equally good ones of their own devising, but to the inexperienced and untrained teacher, the few examples given should be sufficient to get the principles that will throw light on the successful use of the book.

## GEOGRAPHY.

### *General Suggestions.*

The course in geography, as here outlined, is limited to the fourth, fifth, sixth and seventh grades. If the geography is properly taught in these grades, the fundamentals can be intellingently acquired within this time. In the eighth year the geography is to be used as a reference book only, unless the teacher has the time for a supplementary commercial course in geography.

The aim of this outline is to meet the needs and difficulties of the

average teacher using the average text.

The study of geography proper with daily recitations is to begin in the fourth grade, where one whole year should be devoted to out-of-door and home geography.

No book is to be used. The knowledge in this grade is to be from actual observations in the region of the home.

With a two-book series, it is planned that book one will be taken up in the fifth grade, when globe study in the outline is begun. The use of the text book will sometimes precede and sometimes follow the class work on a given topic, according to the judgment of the teacher. This text should be completed in the fifth year, or, at most, by the middle of the sixth year. This is followed by the advanced text, which is completed at the end of the seventh year. With the advanced text the work is to be more intensive in character, and the study of the subject matter is made from the point of view of the cause and effect.

*Work in Fourth Grade.*

1. Introductory lessons:

a. Mapping of school room, school grounds and immediate vicinity.

b. Study of land and water forms of the district, with the purpose of forming, if possible, good, clear, mental pictures of (1) valley, (2) slope, (3) divide, (4) hill, (5) plain, (6) alluvial fan, (7) delta, (8) flood plain, (9) pond or lake, (10) stream, (11) marsh or swamp, etc.

c. Observation work on changing seasons and weather as winter begins. Bring out how the change in the direction of wind causes changes in temperature, precipitation and state of sky.

d. Attention to the winter occupations of the farmer and others in the community, especially to the commercial side of the farmer's life, such as hauling wood and produce to town. This will lead to a comparison of town and country life and the study of the town as a commercial and manufacturing center.

e. Comparative home geography.

By comparison and contrast make a study of life and environment in other lands. The following is suggested:

(1) Life in arctic lands—Greenland.

(2) Life in tropical forests—Amazon Valley.

(3) Life along sea coasts—Norway.

(4) Life in mountains—Switzerland.

(5) Life on deserts—Sahara.

(c) Life on grass lands—Australia, Argentine or the steppes of Russia.

(7) Life in the Orient—China or Japan.

Make a collection of pictures to illustrate this work. See suggestions for purposes of the work and references.

f. Observation work on seasons and weather, as before, as spring opens.

g. Summarize the results of this year's study of seasons to bring out why summer is warmer than winter, and why we have change of seasons.

h. Have pupils make local maps, putting in drainage features, relief forms, roads, buildings, district boundary lines, fields, etc.

i. Observations on the spring work and occupations of the farmer. While the fields are being plowed is the best opportunity to study soils and their relation to the crops grown.

*Purpose:* To furnish the child through observation and experience with such fundamental ideas as will help him to form correct notions of the countries or regions which he has not seen.

*Method:* The work in class should be based upon and grow out of observations, field trips and first hand study of the various features and phenomena of the home environment. No formal definitions should be taught.

*Seasons.*

a. *Introduction:* Have lessons which appeal to the child's experience, and which make clear to him how change of seasons influence his games, the occupations of his people, the plant and animal life about him. These lessons should provide for clear and vivid ideas, and emphasize that which is essential in modern geography viz: the relations of life to its environment.

b. *Observations:* Beginning in September with the autumnal equinox, a series of weekly or monthly observations should be started and carried on through the year with the purpose of determining:

(1) Time of sunrise and sunset, with varying lengths of day and night.

(2) Direction in which the sun rises, its path through the sky and direction in which it sets.

(3) Noon altitude of the sun, or angle of the sun's rays as

shown by the length of shadow cast by a vertical post.

A record should be kept of these observations. Special care should be taken to make accurate observations on the vernal and autumnal equinoxes (March 21st and September 22nd), and the winter and summer solstices (December 21st and June 22nd).

While making these observations, the directions, north, south, east and west, should be taught. The expressions "up" for north and "down" for south, should never be used. As the observations proceed, the pupil will see that the sun rises in the east and sets in the west only at the time of the equinoxes. He should learn to think of north as the direction in which the shadow of a vertical post falls at noon.

At the end of the school year these observations should be summarized and a conclusion reached as to the cause of the change of seasons. The pupil should be able to see that summer is warmer than winter because the days are longer, the nights shorter, and the sun's rays nearer vertical, and that change of season is due to the changing length of day and night and the changing angle of the sun's rays. The vertical rays heat more than slanting rays will usually be demonstrated by a single day's observation of the difference in temperature betwen sunrise and noon. The above explanation of seasons is the only one that can be made in the child's experience and the only one that should be attempted in this grade. The shape and motions of the earth should not be mentioned in this grade in connection with the season, and the explanations which involves this use should be postponed until the advanced text is introduced.

*Weather Observations.*

Parallel with the above observations, a simple record of weather observations should be kept. This should include the state of the sky, temperature, precipitation, direction of wind, etc., for each day in the school year.

The following table is suggestive:

| Date. | Sky. | Temperature. | Precipitation. | Wind | Remarks |
|---|---|---|---|---|---|
| Sept. 20 | Clear | Warm 75° | None. | S. E. | |
| Sept. 21 | Cloudy | Cooler 60° | Rain | S. to S. W. | |
| Sept. 22 | Fair | Cold 40° | Light Frost | N. W. | |

Under remaks, a record of many interesting phenomena may be kept, such as first snow, first robin, wild geese flying north, first violet, etc. The keeping of such a record will stimulate the closest

and most varied observations, each pupil being anxious to outdo the others.

Aim to associate wind directions with state of the sky, temperature, precipitation, and to determine what winds give us the clearest skies and coolest weather; or warmer temperature, cloudy skies and rain, or our heavy snow storms. The explanation of all this will come in the later grades.

*Forms of Land and Water.*

The aim of the observations should be to give the child good, clear, mental pictures of such relief and water forms as valley, gulley, gorge or canyon, flood-plain, alluvial fan, slope, hill, divide, brook and river, rapids and falls, lake and swamp, together with some notion of the action of streams in producing many of the above relief forms.

These are to be studied through field trips and excursions. It is left to the teacher's ingenuity to find time and place for these excursions but it is urged that she manage in some way, at noon, at recess or after school, to take many of these trips. She should first go over the ground and carefully plan out each trip in advance. Her walks through the fields should have a purpose in them. Visit some creek or brook, and note from time to time how mud, sand and gravel are being carried or rolled along its bottom; how this load of waste and the volume of the stream vary before and after rains; how the streams are cutting on the outside and depositing on the inside of every curve; how some valleys are narrow at the bottom or V-shaped, while others have flood-plains on either side. On the steeper slopes along these valleys, or of some neighboring hill, the temporary torrents or streams, which gather after a heavy rain, may have cut these slopes with gullies and at the lower end of these gullies have spread out their load of sand and gravel into fan-shaped deposits, known as alluvial fans or cones. A delta formed from some mud-laden streamlet will usually illustrate all those characteristics and features of such larger deltas as those of the Mississippi or the Nile. These observations can be grasped as a whole by the child's mind and concepts can be formed which can later be enlarged to include those more distant ones.

This out-of-door geography should not be confined to the fourth grade. Whenever the home region furnishes anything which will

aid in making real to the pupils some unseen region, then that particular thing should be the introduction to the distant region.

Do not attempt too much on field excursions. Each excursion will furnish sufficient material for several subsequent class discussions. Without these class discussions the excursions themselves are of little value.

*Agriculture.*

The aim of the work should be to develop in the mind of the pupil good, clear concepts of the various industries of his community, which shall in later grades be the basis for comparing and contrasting the industries of other regions.

In the fall make a study of the various crops raised in the neighborhood, the soil upon which they grow, the manner of harvesting these crops, and the uses to which they are put. In the spring study the preparation of the soil, planting and tilling of various crops. Note what crops are raised on sandy soils, loams, heavy clay soils, muck or marshy land, and the relation of quantities produced to the soil. A careful study of the soils of the neighboring fields should be made. This study leads naturally to the origin of soil and how rocks are broken up by frost action, rain, changes of temperature, etc. Notice the layers of soil and subsoil in excavations, railway cuts and other places. Have the children account for the differences. In connection with agriculture, study also the specialized phases of the industry, such as fruit growing, market gardening, stock raising and dairying.

*Commerce.*

The study of agriculture leads naturally into that of commerce. After the farmer has gathered his crops and put aside from products of his farm a sufficient amount to supply the needs of his family, his stock and his seed for next year, and has still a surplus of grain, potatoes, apples and other products, he naturally seeks a buyer among people who are engaged in different occupations, and who, for that reason, have needs and wants different from his. This leads him to haul his products to the town or city where he exchanges them for money or articles which he needs. This is commerce and grows out of diversity of needs, which in turn grows largely out of diversity of occupation. These principles are fundamental and may be grasped and understood by the fourth grade

pupil if studied as they apply to his own home life and neighborhood. This makes commerce a real thing to him. He can realize in part that because his father hauls his grain or fruit to town, the commerce of freight trains and steamboats is in part made possible.

The farm wagon has a new interest since it is one of the means of the world's commerce. Roads and bridges are also means of commerce, hence the importance of good roads. This work leads naturally to the study of the neighboring town as a commercial center. Let the children report on what they have seen in town that is different from the country, viz: the houses being close together, streets and sidewalks, the stores, necessity for fire protection, the railroad by which the town sends its surplus to other towns and received in exchange articles which it and the surrounding country need. Contrast life in the town with life in the country, the advantages and disadvantages of each.

Let the children make lists of articles exported from and imported to their fathers' farms and from these lists get an idea of the exports and imports of their community.

Tell them stories about some of the distant regions of the earth that supply them with necessities, such as coffee from Brazil, tea from China and Japan, rubber from the Amazon valley.

### *Manufacturing.*

Whenever the district offers opportunity for the observation study of manufacturing, the teacher should give, through observation, a foundation notion of this branch of industry. The grist-mill, saw-mill, creamery and foundry are typical in that the manufacturing plant is stationary and the raw material must be transported to the power or the factory.

These observations should lead the pupil to see that the following conditions are necessary for manufacturing as carried on today:

(a) Power, and if possible, the various means of obtaining it, such as water power, steam, gasoline and electricity.

(b) Raw material.

(c) Food supply for employees.

(d) Labor.

(e) Commercial facilities, wagons, freight cars or vessels which bring raw material to the factory and take away the manufactured products.

Encourage the children to observe and report all the various

forms of manufacturing carried on in the community. Have the pupils prepare lists of raw materials and of manufacturesd articles exported from, or imported into, the neighborhood. Have pupils find out the kind of plows, buggies, binders, sewing machines, and other articles of farm and household use, and where they are made. In this way the connection may be made between the home section and distant section.

*Comparative Home Geography.*

The pupils have found in the study of the commerce of their home region that is is dependent upon, and contributes to, many other regions in furnishing man with food, clothing and shelter.

It is because of this mutual dependence that these distant regions should be known. This dependence and relationship furnishes the way of approach to the study of other regions.

In the fifth grade the study of the globe will be taken up and many facts will be learned of the earth as a whole. Pupils will learn that the surface of the earth is divided into continents and oceans, and see them represented on the globe by means of symbols. If it is necessary for the pupil to know by experience real rivers, hills and plains before he sees them represented by symbols on a map, it is equally necessary that the child have some ideas concerning a continent or country and the people who live there, before he sees on a globe or map the symbol representing that continent or country. For example, his first contact with South America should not be through its symbols; he should have ideas and mental pictures of parts of the region which the symbol may call up. Since the basis he has for comprehending distant regions is through experience gained in his own home region, he can best understand the distant by comparing and contrasting it with the near.

It is therefore suggested that from time to time simple descriptions and stories he read or told the children and that pictures be shown them of the life in other lands. The regions selected may be either those which send to us or receive from us some useful and necessary article as suggested above, or those regions which differ from our home region more markedly, such as Greenland or Lapland, the Sahara Desert or a level region like the Pampas.

*Maps and Mapping.*

The ability to read and use a map is of permanent value to the pupil. A map is not a picture. The features presented on a

map are represented by means of symbols which often have no resemblance to the features themselves. The map work in this grade should make the child familiar.

(1). With the things and geographical features themselves.

(2). With the use of symbols by which these features are represented upon maps. The pupil should not be required to use a symbol in mapping until he has become familiar through observation, experience or pictures, with the thing symbolized.

The first maps made by the child should be of things and places so familiar with the child that neither time nor attention need be spent upon the things themselves but upon the idea of representing them by symbols. A map or plan of the school room and school yard should be drawn first. From the first let the maps be drawn to a scale,—a half or quarter of an inch on the paper representing a foot, yard, or rod on the region mapped. As the observation work is extended so as to include streams, valleys, hills, alluvial fans, etc., the mapping of these various features should be extended until the child is familiar not only with the region and its map, but with the general idea of mapping. The idea of direction should be introduced early. Maps drawn in this grade should always contain some symbol to indicate directions, such as an arrow which points north, or some other symbol. It is not necessary to have pupils make maps with north at the top, but it is necessary that north be indicated by some symbol, so that the pupil may early acquire the habit of looking for the direction symbols on every map.

*References for Comparative Home Geography.*

1. Big People and Little People of Other Lands.—Shaw. American Book Co. 30 cents.
2. Children of the Cold.—Schwatka. Ed. Pub. Co. 50 cents.
3. Children of the Palm Land.—Allen. Ed. Pub Co. 50 cents.
4. Each and All.—Andrews. Ginn & Co. 50 cents.
5. Northern Europe. Ginn & Co. 30 cents.
6. Seven Little Sisters.—Andrews. Ginn & Co. 50 cents.
7. Strange Lands Near Home. Ginn & Co. 30 cents.
8. The Wide World. Ginn & Co. 30 cents.
9. Toward the Rising Sun. Ginn & Co. 30 cents.
10. Under Sunny Skies. Ginn & Co. 30 cents.
11. The Little Folks of Other Lands.—Chaplin Lathrop Pub. Co. 60 cents.

12. Excursions and Lessons in Home Geography.—McMurray-Macmillan. 50 cents.

13. How We Are Clothed.—Chamberlain. Macmillan. 40 cts.

14. How We Are Fed.—Chamberlain. Macmillan. 40 cents.

15. Around the World, Geographical Readers, 3 Vol. Silver, Burdett & Co.

16. The Snow Baby.—Peary. F. A. Stokes & Co. $1.20.

17. Home Life in all Lands.—Morris. Lippincott $1.50.

18. Fairbank's Home Geography. Ed. Pub. Co. $1.00.

19. How We Are Sheltered. Macmillan Co. 45 cents.

## SPELLING.

Any one who has had the opportunity to observe the spelling ability of the average pupil who enters high school knows that more careful teaching needs to be done in the grades in the subject of spelling. It is quite probable that enough time has been spent upon the subject, but it is clear that the results have not been satisfactory. Investigatings show that the results attained do not justify the amount of time that is now being spent upon spelling. When the old fashioned spelling bee was in vogue pupils could stand up and spell but they seemed to lack the power to spell correctly on paper. On the other hand it is thought that written spelling alone does not accomplish all that is desired. The following suggestions may prove helpful:

1. Alternate the written and oral lesson.

2. Have a definite period for spelling, and conduct the lesson regularly.

3. Make the exercises as practical as possible. Drill upon lists of words from other subjects.

4. Teach pupils how to study their spelling lessons; have them observe the form closely; limit the study period so that they will not waste time in mastering a few new words; do not waste time upon the easy words; drill upon those commonly misspelled.

5. Have spelling matches and be sure that the words pronounced are practical. Arrange for a match with the neighboring school.

6. Teach the diacritical marks as a means to correct pronunciation and not as a means to themselves.

7. The final test is written work in other subjects.

Spelling has already been provided for in this course of study in the first, second and third years in connection with the subject of reading.

*Fourth and Fifth Grades.*

The text book may now be introduced, and used until the end of the seventh year. Only a certain amount of the text should be gone over during the fourth year; pupils should understand that they are to master all practical words in this section of the book. In addition to the text it would be well to study antonyms and synonyms, homophones, two or three simple rules for spelling and call attention to the grammatical forms of words. Dictation exercises should also be used.

In the fifth year a certain other section of the text should be mastered. The work of the fourth year should be continued with a study of word building with prefixes and suffixes; study related words and diacritical marks. Definition of words should be in connection with other subjects.

### WRITING.

See suggestions in first grade.

## FIFTH YEAR.

### READING AND LITERATURE.

This year will finish reading so far as distinct reading classes are concerned. The opportunities to teach reading, however, are even better in the sixth, seventh and eighth years when reading is primarily to get ideas and meaning. During this year the fifth reader and, at least, an equivalent in amount of literature should be read by each pupil.

As pointed out above reading may be thought of as the assigning of values to words, phrases, sentences, etc., to bring out meaning. In some selections it is simple enough to assign the values to words; the selection is easy, suited only for extensive reading; the pupil can find his way without difficulty and there is little opportunity for teaching. In other sections it is more difficult to assign the values to the words, to get the correct idea. These are the selections that afford opportunity to teach reading, the opportunity for intensive study. A number of lessons may be taken on the same selection, class study lessons, before any attempt is made to read it aloud. This kind of intensive reading requires much class thinking. Here is the teacher's opportunity. Many selections in readers need not be read in class at all; they are suited for seat work and

home reading. In this way time is given for close study of the more difficult selections.

Children should be taught to manage their eyes effectively in reading. The eye movement in looking ahead to catch the meaning and to be prepared for the words and phrases is very important.

**Lesson Plan.**

*Selections*—The King of the Golden River,—John Ruskin

*Synopsis of Story:*

1. The appearance of Treasure Valley, the character of its owners and the way in which they lost their inheritance.
2. The life and occupation of the brothers after they left Treasure Valley and the discovery of a way to regain it.
3. How Hans followed the directions given and what became of him.
4. The attempt made by Schwartz and his fate.
5. The trial of Gluck and the reason for his success.

This story is to teach how "an inheritance which had been lost by cruelty was regained by love."

The following suggestions illustrate the way in which the work is to be done:

To assist the pupil's study, assign definite parts of the story to be read silently. Direct pupils to make a list of the words they do not understand and find meanings for as many as they can in the dictionary. Compare these lists in class, helping the children to any meanings they have not been able to find. Let pupils substitute some of the new words found in place of those used in the text and compare and discuss results, trying to find a reason for the author's choice of words.

To insure correct pronunciation of difficult words lead the children to use as many of them as possible in discussing their own experiences, describing persons and places and in answering questions similar to the following:—What two words in the first sentence help us to picture the part of Stiria we are to read about? What two words tell about the fertility of the Valley? What did the descending torrents form, etc., etc.?

To help the pupils to form clear pictures of what has been read silently, ask them to describe in their own words places, persons or objects such as Treasure Valley, the appearance and character of each of the three brothers, the visitor who asked Gluck for shelter, Gluck's golden mug, etc.

To get individual expression from the children and save time in class, ask them to tell in writing about such things as how Hans and Schwartz treated animals, how they treated their servants and Gluck, how they became so rich; also to tell all the reasons they can for calling Hans and Schwartz the Black Brothers, for their failure to recover Treasure Valley, for the success of Gluck ,etc.

As a means of helping all the pupils to recall the details and to insure the viewing of them in their proper relations, some of the more involved descriptions will be read aloud. Most of the conversations will be read in the same way, also such of the narrative parts as seem to be needed to keep the unity and movement of the story clearly in mind and give emphasis to the important incidents. In reading the conversations, the class will be asked to first read silently, imaging that they hear the characters talking together, then to take the different parts and by voice and action express themselves in accordance with the character impersonated. In reading the narrative and descriptive parts the class may close books and listen to the reader who will try to act the part of a real story-teller or make his hearers see the thing described.

To fix the most important incidents of the story in mind and help to impress their meaning, the pupils will be led to work out suitable illustrations in graphic forms as in paper cuttings or drawings. At the end of the study, pupils will be asked to tell what they like best in the story and why and to discover the author's purpose in writing it as stated in one of the final paragraphs.

*Material Needed:*—Copies of the text for children's use, pictures of mountain scenery, glaciers, etc., dictionaries, writing materials and materials for illustrations.

## NATURE STUDY.

### *Fifth and Sixth Grades.*

In the previous grades most of the topics which come within the range of the pupil's observation will have been studied in a general way. In the fifth and sixth grades an intensive study should be made of some of these topics.

Animals:—Study the birds of the community; name and classify them and be familiar with their habits and haunts; keep bird charts and calendars; and emphasize the great value of birds to the farmer. Reason for bird laws. Study bees, spiders and mosquitoes, toads, frogs, turtles and snakes.

Study molds, yeasts and bacteria in the home; care of bread boxes, sinks, and home sanitation.

Inasmuch as sixth grade nature study leads directly to seventh grade agriculture, much time should be given to elementary plant study. Study ferns, mosses, corn, cane, wheat and rye; conditions of plant growth; care of trees by pruning, filling knot holes, and spraying; care and protection of the forests.

### PHYSIOLOGY AND HYGIENE.

One lesson per week coming on the same day each week at the period assigned to Nature Study.

Finish the Primer of Hygiene. The work should begin with some review of the essential points of the previous year's work.

Whenever references are made to parts of the body, or other things, which the child may not understand, very careful explanation should be made.

### ARITHMETIC.

Appleton's Grammar School Arithmetic is the adopted text, and this book is completed in the fifth, sixth, seventh and eighth grades.

In the fifth grade the first three chapters are completed. In the first semester the work includes review and preparation and much oral work; notation and numeration extended and enlarged; addition and substraction; multiplication and division of whole numbers and fractions, and the text is finished to include page 85.

In the second semester the same work as in the first is continued, and denominate numbers and decimal fractions are included; the text should be completed to chapter four by the end of this year.

Throughout the whole year the teacher should give supplementary problems related to the work of the text.

### LANGUAGE.

Book One is to be completed in this grade. Begin with a review of Part Two, which relates to letter writing. This will give an excellent opportunity to see any weaknesses of the instruction in the previous grade, and to make any reviews necessary to supplement and strengthen it. In many of the lessons of this grade, much that was said relative to the work of the 4th grade, would also be applicable; and there are very few of the lessons in which the teacher should not still go over the lesson with the class, orally, with instructions and suggestions, or even minute directions as to what is to be

done, before the pupil does his seat work, necessary in working out any written work required. The few definitions that are given in black faced type should be subjects of sufficient drill, to insure that the child knows them not only well enough to understand them, but to readily repeat them word for word.

## GEOGRAPHY.

### *Globe Study.*

1. Globe lessons, four weeks. (General direction for carrying on this work given below.)
2. Elementary text book taken up.
3. Transition from globe to map.
4. Regional study.

(1) North America, United States and the remaining continents in outline.

1. Form and Size.

By enlarging the conception given by the globe, try to give some idea of the immense ball on which we live, how it is composed of rock, mantled over with loose material and soil of varying depth; that immense depressions are filled with water forming oceans and separating the larger land masses or continents. Instead of having diameter and circumference committed to memory as such, let them be used as data for simple problems, such as "How long would it take a man to travel around the earth on the equator, travelling at an average rate of ten miles an hour," At best the globe must stand as a symbol for ideas and facts too large for the comprehension of the child.

2. Motions of the Earth.

(a) Revolution around the sun. Little can be done to make this motion mean much to the child because he cannot experience it. He may learn that it is the time required to make one such revolution that determines the length of one year. This revolution is only one of four or five factors which combined produce seasons. Review the observations on seasons made in the third grade and the conclusions thus reached.

(b) Rotation and some of its consequences.

(1) Succession of day and night.

(2) Directions, north, south, east and west, are due to rotation. North is toward the north pole. The north pole is one end of the

axis, and the axis is due to rotation. Do not use the expressions "up" and "down" for north and south.

(3) Show how directions are indicated on the globe by meridians and parallels; the former run north and south, the latter run east and west. Give such drill in using these direction symbols.

(4) Location of places on the earth. Show how meridians are numbered east and west from a given prime meridian, and the parallels north and south from the equator, and how from numbers on the lines which intersect at a given place it is possible to tell the location of places on the globe. Give abundant drill in thus locating places until the child can readily tell the approximate latitude and longitude of any point on the globe.

3. Distribution of Land and Waters Continents and Oceans.

(a) Positions of continents on the globe, their direction from each other, the bounding and intervening oceans. Explain these great land and water bodies to the child before introducing their symbols. The idea should always come before its symbol.

(b) General shape and form of continents, with a few of the most important capes, peninsulas, islands, seas, gulfs and bays.

(c) Relative size of continents as estimated from globe.

Note:—For this work, an eighteen inch globe is almost a necessity. One of the best is the Pendant Globe, sold by the Caxton Company, of Chicago.

4. Climatic Conditions on the Earth.

Review what the pupils learned in the fourth grade as to the relation of high sun and low sun to the warm temperatures of summer and the cold ones of winter. Let the teacher go in imagination with the class to the equator, and tell them where the sun rises and sets and where it is at noon at various times during the year, emphasizing the steep rays which always fall here, so that the pupils from their own experience with steep rays and a high sun ought to infer the hot temperature of this region. Then go with them to the "Land of the Midnight Sun," with its slanting rays and low sun and let them infer the conditions of temperature there. Locate the doldrum belt near the equator with its hot, moist climate, with its daily rains. Contrast with this rainy belt the hot dry regions on either side, over which the trade winds blow making such deserts as the Sahara, Kalahara and the one in Australia. Now contrast with the uniformly hot and dry climate of the deserts or the uni-

formly hot and moist climate of the doldrum belt, the variable weather of the temperate zone as it has been observed by the child.

*Regional Geography.*

1. Transition from Globe to Map.

The pupils should have become so familiar with the globe that they are able

(a) To locate any place in approximately its correct latitude and longitude.

(b) To tell directions on the globe.

(c) To know at a glance the names of the various continents from their shape and outline.

It now becomes necessary to represent various features of surface and drainage, etc., with greater detail than can be done on the globe, so the map must be introduced. In order that the pupils do not form wrong conceptions, owing to the flat surface upon which a map is made, the use of the sand table is recommended. Here the relief form may be represented and the concept transferred to the map. When the pupil knows the meaning of all the various symbols, can tell direction on the map, locate places when their latitude and longitude are given, and knows how to use the scale, he is then prepared to read and study the map.

2. The Use of the Map.

In studying a region, there is much information concerning position, form and boundaries, size, surface and drainage that can be much better read from the map than it can from the text. This work should be done in the class and from good wall maps that show the physical features of the region studied. The work of map reading should be done at first under the direction and questioning of the teacher. Organize your class into an imaginary exploring party, and as you sail in imagination up the Mississippi, Amazon or Nile, tell them by word and picture of the wonderful sights that would greet their eyes were they really sailing up those rivers. Make the symbols on the map speak of real rivers, mountains and plains. When the map has told all it can in this way, let the pupils read what the text has to say. What it does say will mean something because they are prepared to understand it.

3. The Atlas Habit

It is suggested that the teacher start the pupils of this age in the formation of the right atlas habit. Whenever in the preparation of a reading, history or geography lesson, the pupils read of a city, river, mountain or other geographical feature, the teacher should insist that he stop and look up in his atlas the location of the place. Places located in this way have something with which they can be associated and will be remembered the longer because of this association.

4. Map Drawing.

Map drawing is a means to an end, and this end is the better understanding of the position, form, size, surface, drainage, etc., of the regions studied. The sand table should be used only as a means of expression by the child, as a means of teaching new ideas and concepts. If the child has studied directly some gully or valley, the reproduction of his conception of it is an excellent means of fixing the concept in his mind.

*Outline for Continental Study of North America.*

I. Position.
   1. In zones.
   2. In hemispheres.
   3. In relation to bordering waters.
   4. In relation to other continents.

II. Form.
   1. General: Roughly triangular.
   2. Actual, determined by:
      (a) Its more important indentations.
      (b) Its more important prolongations.

III. Size.

1. As compared with other continents. This should be done in an approximate way only. No area in square miles is to be given.

2. As shown by the fact that it stretches entirely across the temperate zone and reaches into the arctic circle on the north and the torrid on the south.

How long would it take to journey in various directions across it at different rates? Give problems to be solved.

IV. Relief. (data to be secured largely from map.)

1. Highlands:
   Rocky Mountain highlands.
   Appalachian highlands.
2. Lowlands:

Plains:

The great central plain.
The Atlantic Coastal plain.
The Gulf Coastal Plain.

V. Drainage.

Gulf drainage.
Atlantic drainage.
Pacific drainage.

VI. Distribution of people: Where dense, where sparse, as determined by the occupations of the people and the food producing capacity of the various sections.

VII. Political divisions.

1. United States and Alaska.
2. Dominion of Canada.
3. Mexico.
4. Central America.

The order of topics in the study of North America is followed in the study of the United States as a whole. VIII. (Relief), X. (Climate) and XI (Possibilities of Occupation), are to be treated with greater fulness because of their greater importance. It is the large general truths of relief, climate, natural resources and industry which are wanted, not isolated evidences of geographical relationships.

VIII. Relief:

1. This includes a study of the differences in character, elevations and extent between the two great highland masses. In this connection the chief ranges should be named, located and characterized.

IX. Drainage.

Chief drainage lines and their relation to the relief forms.
Drill most upon the streams which are commercially important.

X. Climate.

Show the position of the United States on the globe. It will be seen that the northern part is near the Arctic zone. Locate the home state and the city or village nearest to the school. Have the

children recall the usual weather conditions during the summer and winter in their own home region. Show pictures of southern scenes and let the children tell how the northern and southern seasons differ. The children, through their nature study should be familiar with the processes of evaporation and condensation of moisture.

Explain how moisture evaporates over the sea and is borne into the interior to be condensed and fall as rain over the land. Show upon maps the distribution of rainfall in the United States. Have pupils locate on wall maps regions of

1. Abundant rainfall;

(a) Where the rain is well distributed and where the temperature is warm enough to produce abundant vegetation, and

(b). Where the rain is abundant in amount and in a warm region, but where not well distributed, resulting in arid or semi-arid wastes, and

(c). Where the rain is abundant, but in cold regions, resulting in snow.

2. Medium rainfall, enough so that crops will grow.
3. Slight rainfall, resulting in deserts.

XI. Possibilities of Occupation.

As a result of the relief, temperature and rainfall, it will be found that certain parts of the United States are suited to certain industries, so that it is possible to divide the states into groups in which the same industries are carried on. In this way locate:

1. The chief agricultural and grazing sections and their chief productions.
2. The mining regions and the most important minerals.
3. The lumbering regions and the most important trees.
4. The manufacturing regions and manufactures.
5. The fishing grounds and the chief catches.

XII. States.

Give the pupils an idea of what is meant by a state; point out physical regions and state groups and have them indentify these groups by their leading industries.

Only a few of the leading industrial and commercial cities should be studied, and these should be closely identified with the industrial region in which they are situated and with their leading productions.

Alaska should be considered with the United States.

The work thus far outlined will occupy the first half of the year. The second half should be devoted to a very rapid survey of the other continents with but little reference to individual countries except in case of Europe, where the leading countries are to be located and characterized.

The text in the fifth year should be descriptive in character. Only the more important physical and political features need be emphasized. Many items of information ordinarily included in geographical text books must be excluded. Items of history and government have no place here.

The remainder of the year should be spent upon the following countries:

Europe.
Asia.
Africa.
Australia.

The chief points to be covered are:

1. Position.
2. Form.
3. Size.
4. Relief.
5. Drainage.
6. Climate.
7. Occupations and industrial regions.
8. Centers of population and chief cities.

Be simple; confine the children to the study of geography and do not go into details.

## UNITED STATES HISTORY.

The aims in teaching the history of the United States are (1) to secure a knowledge of the facts of the discovery and settlement of our country, of the growth of the colonies and of the forming of our national government; (2) to trace our growth as a nation since our separation from Great Britian and to learn in what respects our development is notable; (3) to discover the causes of this growth. Why are we as a nation what we are? How and why do we differ from other nations? (4) To develop the pupil's character through the influence of great historic characters; (5) to develop in the pupil a real genuine patriotism. True patriotism is "love of country" not because of its bigness, or its wealth, but because of its righteousness, fairness and justice; and to show something

of the continuity of plan and purpose which runs through the movements and events which control the organization of society.

The foundation for the study of history should be laid in the lower grades. This foundation work should not be entirely incidental but should have a definite purpose which should be to furnish a body of facts and knowledge by which to interpret the new series of facts now to be presented, to train the imagination to construct mental pictures of the events described, and to create an interest in the subject. If this preparatory work is done properly, the difficulties attending the first attempt at the study of history will be greatly lessened.

The approach to history should be through the story and through biography. This feature has been kept in mind in the course outlined for reading and literature and the teacher should refer back to that outline at this point. The early interest of the child is not in history as a scientific study, but in the stories of men and in their lives irrespective of their relation to larger movements.

The pupil begins the acquisition of historical material as isolated facts. He organizes these into series later, and constructs his philosophy of history last. The teacher should observe carefully this order of development.

Cultivate the imagination; that is, make use of pictures and maps to assist the mind to image the things which are described.

History, in its ordinary aspect, is produced by people doing things, sometimes singly, sometimes in larger or smaller groups. The ability to reconstruct, in imagination, the conditions and actions of the individuals makes the description clear and saves from dead memorizing. History is a thing of life and action, and should be taught so as to bring out these facts.

Use a variety of methods in teaching. History lends itself well to recitation by *topics* because of the story element and pupils ought to be trained to tell connected facts in series. This method tests the strength of the imagination and should show the teacher whether or not her pupils are getting hold of the work in proper manner. The *question* method should be frequently resorted to to develop relations that may not have appeared clear to pupils. Topical *outlines* and chapter analysis should be employed for rapid review work. Reviews of persons and of prominent dates, giving a significant fact pertaining to each, will also afford variety of method and can be made to lend interest.

History and Geography. Make frequent use of maps to fix loca-

tion of incidents and events. These, in general, should be merely outlined and may be sketched free hand on the blackboard. It is a good plan to have pupils prepare a careful outline map at the beginning of the work and fill in from day to day as the occasion may require.

The maps may be made by the pupils themselves or outline maps may be purchased and filled in. The teacher should be guided by his own judgment as to what shall be put upon the maps. Maps may be made showing the claims of various European countries to parts of the new world; of the early settlements; of the typical colonies; of territorial growth of military campaigns, etc.

Care should be taken that pupils study closely the maps given in the text. Where these are of small areas or sections of the country, teachers should see that pupils understand their relation to the general map.

In general, three things, the event, the time, and the place, should be correlated.

Supplement the work of the required text. No single volume can give a full account of American History. The events are too numerous. Each writer selects what he believes to be the most important facts. All writers do not agree as to the importance of various facts, hence some points are contained in one book that are not found in others. It can be made a matter of interest for pupils to look up these additional facts. If pupils are asked to do so, many of them will bring other books besides the text book from which many interesting facts can be gained. This method of treating the subject will also teach them to study the subject rather than the text.

If possible, have more than one text on your desk and permit your pupils to use them as often as they desire to do so.

Collect stories and anecdotes regarding important events or prominent persons. These can be used to illustrate and illuminate the text. Make a history scrap book. The foot notes in Barnes' History of the United States is a good illustration of the kind of material to collect.

Read, or have read, poems founded on historic incidents. Joaquin Miller's "Columbus"; "Paul Revere's Ride"; "Sheridan's Ride"; "Battle Hymn of the Republic"; "The Rising"; "Commemoration Ode"; "The Fight at Concord Bridge"; "The American Flag"; "John Burns at Gettysburg"; "The Blue and the Gray."

National Anthems and Patriotic Songs can be made to contribute

to the teaching of history. Picture postal cards may be used to good advantage in history teaching as well as in teaching geography.

All history points toward the present, hence teachers should find as many opportunities as possible of showing how events and conditions, as they now exist, are dependent upon the past. A fact has little interest in itself. It gains its interest and significance because of its relations to other facts and it has greater significance and interest if it is related to facts near at hand. The study of history should enable us to understand the present. History and current events are but parts of the same theme.

The opportunity afforded by history for "oral" recitation is a splendid chance to cultivate the power of expression. See that the statements made in reciting are in good, clear connected sentences. Let this work broaden and improve the vocabulary.

History is a great reservoir of material for moral instruction. Study the conduct of historic characters with reference to their actions as right or wrong. There are characters which we admire, as Washington, Lincoln, Franklin, etc., and there are those whom we do not like, as, Arnold, Burr, Gates, etc. Why? Without attempting primarily "to point a moral or adorn a tale" the qualities of conduct may be presented so as to have great effect upon the notions of right and wrong which the pupils are forming. In other words, these things help them to form their own ideals of life and conduct.

Make your history work teach true patriotism. We believe in our country. We are proud of its history and of its strength and position among the nations of the world. We are proud of our form of government and of the degree of liberty of thought and action which we enjoy. But we are not perfect. There are many things yet needed to make us an ideal nation. We want our nation to be known best not for its wealth, not its size, not its past history, but for its real freedom and absolute justice as between man and man, and in its relation to other nations.

As the study proceeds keep clearly in mind the work which has been done previously. Relate each new lesson to that which precedes, and call attention of pupils to new facts as they are introduced and to their effect on the course of events.

Where teachers have not made special preparation for the teaching of history they will secure valuable suggestions regarding its purposes and manner of presenting material in reading some one or more of these books: McMurry's Special Method in History—

The Macmillan Company; Methods of Teaching and Studying History (edited by Hall)—D. C. Heath & Company; Hinsdale's How to Study and Teach History—D. Appleton & Company; Mace's Method in History for Teachers and Students—Ginn & Company; Bourne's The Teaching of History and Civics—Longmans, Green & Company.

Teachers who wish for a detailed outline in history would do well to secure Bliss's History in the Elementary Schools—Am. Book Co.; or Channing and Hart's Guide to American History—Ginn & Company. The first of these books is especially rich in its suggestion of topics and sources of information upon them.

### SPELLING.

See suggestions in fourth grade.

### WRITING.

See suggestions in first grade.

## SIXTH YEAR.

### LITERATURE.

*General Suggestions.*

In the general discussion of the subject of reading, a distinction was made between the two phases of reading as a school subject, which are: first, oral reading, in which emphasis is partly put upon the power to give suitable expression to the meaning of the printed page, and second, silent reading, in which the emphasis is all on the ability to obtain the meaning of the printed words.

The teacher has also doubtless noted that reading as a class subject, with distinct recitation periods and with emphasis upon the oral phase, has not been continued in this course of study beyond the fifth year. A set of literature books, however, was adopted for the sixth, seventh and eighth grades. The subject of Literature, therefore, for these grades, takes the place which, in the previous grades, was occupied by reading. The stories, poems, and other selections, which have been put into the volumes referred to, are of a very high order of literary merit. The greater part of these pieces have won an established place as gems and classics of English Literature.

The child who has not some familiarity with at least a great many of these, has missed one of the most priceless inheritances of the English race.

*Sixth Grade.*

In this course of study it is assumed that the child who has completed the five years' work in reading has gained sufficient skill in oral reading for ordinary purposes and has reached the stage of development where he can get quite well the thought of the printed page when the subject matter is properly within his understanding.

The class should use book one of the literature for class work, in which it is thought all the selections would fall well within their power of comprehension. To again emphasize the point already referred to, the emphasis in class work this year will not be in the matter of oral reading, but in the matter of having the children understand the selections readily and appreciate their literary merit. The book is well designed with a view to this end, and gives the teacher ample help and suggestions along this line. Many of the poetical selections and any of the prose that may be suitable, should be memorized by the class. In literary exercises on various special occasions, it is far more profitable to the child to memorize classics, such as these, for purposes of recitation, than it is for him to waste his time with much of the inferior sort of material that is too often used for this purpose. The composition and written work, that is a part of the course in English, might sometimes also find its basis in some of the literary material of this book. The book should be completed during the year.

## NATURE STUDY.

See fifth year.

## PHYSIOLOGY AND HYGIENE.

*Sixth Grade.*

Still take one lesson per week as before. Cover the first 100 pages of the Primer of Sanitation. Give oral lessons and talks as indicated above, not necesarily requiring the pupil to own a book. Care should be taken here, as before, that pupils have an opportunity to see pictures, drawings, diagrams, etc., that will help to make clear his mental images of the subject matter. In such cases as it is possible to bring into the school room objects illustrating the lesson, this should be done. For instance the pupils would fiind it interesting to try to identify the various kinds of disease carrying musquitoes mentioned. The teaching of the subject is practically a failure if it does not result in the pupil's use and application of the principles

learned so that the health of himself and his associates at home and elsewhere will show improvement. The teacher, as far as possible, should stimulate the desire of the pupil to be well, to apply hygienic principles to his own living, and to carry this application to the point that it will result in fixed habits of right living.

### ARITHMETIC.

Denominate numbers, measuring and methods of solving problems, are dwelt upon as outlined in chapters four and five of the text; these two chapters are completed in the first semester of this grade.

In the second semester decimal fractions, measuring, percentage, gain and loss, discount, interest, banking, taxes and duties, insurance and rents, are taken up, and the text gives a great number of review problems in these and related topics.

Chapters six and seven, finishing part one of the text, are completed.

All through this year, as in the preceding one, many supplementary problems, the answer of which is not given to the pupil until he solves and proves the problem, are given by the teacher to strengthen the pupil in independent work.

### LANGUAGE.

Book two should be begun in this grade. Book one related mostly to training in the use of the language, with the simpler forms of composition. Book two, while still emphasizing this training in composition, gives a considerable amount of what is called "technical language," which involves many grammatical distinctions and definitions. As suggested heretofore, these definitions should be very carefully taught, to the end that the child should be able to give a word for word statement of them. It has been found by experience that the knowledge of grammatical principles will not of itself, cause a person to write or speak either fluently or grammatically. Therefore, the teacher should give great care to the exercises given in the book, in which the grammatical principles are illustrated and applied. There may be instances in which the child's ability to express himself shows that the time taken for a particular exercise given in the book would be wasted, in which case certain exercises may be omitted. On the other hand, at certain places there will, undoubtedly, be instances in which it is evident that the child needs training in excess of that given by the exer-

cises supplied by the book, in which case the teacher should give supplementary lessons. While there is, perhaps, in many of the lessons, less need for preliminary oral work preceding the child's seat work; still, the teacher should never assign a lesson merely by page or section, unless she is absolutely sure that the child's conception of what is to be done, and his knowledge of the principles required in doing it, are sufficiently full to render it certain that he will work intelligently and to a definite end. It will be observed that many chapters consist of a preliminary part in which certain grammatical facts or principles are developed, defined, and explained followed by exercises which are designed to test the pupil on these things and to give him training in the practical application of his knowledge relating to them.

In many instances the teacher will do well to give one oral lesson upon the definitive and explanatory part, and have the child, at his seat, write out and bring in the exercises for the succeeding lesson. For instance in chapter 52, on page 104, while some pupils would get a sufficiently good idea of the compound sentence by merely reading what the text book says in the first few sections, still, there are many children who will not do so and certainly the class, as a whole, will develop the conceptions given, much better, after the part referred to is given as an oral class exercise, in which the teacher and the members of the class participate.

The first year's work should complete the book up to page 156.

## GEOGRAPHY.

### *Outline for West Virginia.*

1. Position.
2. Form.
3. Size, as indicated by (1) the latitude, (2) distance by scale of miles east and west, north and south, (3) area, as compared with other states.
4. Relief:
   - (a). The Alleghany Mountains.
   - (b). The Plateau Section.
   - (c). The rounded hills.

Draw map of State to simple scale.

5. Drainage: The sources of rivers, their courses and directions.

6. Climate.
7. Soils.
8. Vegetation.
9. Animal Life.
10. Mineral wealth.
11. Manufacturing.
12. Distribution of population.
13. Chief trade routes.
14. History and government. Little should be done with this topic.

The study of the state should be thorough. It is, both physically and industrially, more easily comprehended than more distant countries, more so than distant parts of the United States.

The study of the continents will be more full, involving a more complete knowledge of the physical, industrial and political conditions in all of the more important countries, but it will also be of an entirely different character. The children are now to see the world as a world of order and unity, where the different life forms and their environment are adjusted to each other.

The continents studied this year are South America, Africa, Asia and Australia. This is for two reasons, the first reason being that the countries of these several continents and their characteristic features and industries were also wholly neglected in the first survey of the fifth grade, and the second being that the seventh year will bring with it added maturity and a more thorough comprehension of the two important continents left for that year.

*The Text Book and Supplementary Readers.*

To distinguish between, and bring out, the important from the unimportant, to drill, illustrate, explain and supplement the text, is the function of the teacher. Don't expect the child to know every city, stream, etc., that the text mentions. To give life and interest to the dry facts of the text book, supplementary readers should be provided by the school board. The teacher should have many sources of information to clothe the bare facts of the text with life and interest which the study of geography ought to inspire.

*Books for Fifth and Sixth Grades.*

Carpenter:

North America. American Book Co. 60 cents.
South America. American Book Co.

Africa. American Book Co.
Asia. American Book Co.
Australia: Our Colonies.
Morris.—Home Life in All Lands.
Tarr & McMurry.—The Earth as a Whole.

### HISTORY.

See History in fifth grade.

### SPELLING.

*Sixth and Seventh Grades.*

In the sixth and seventh years the work of the text should be continued, with a review of preceding years; a few more rules for spelling may be taught; word building, word analysis, and origin of words may be emphasized; definition of words should also receive some attention. It is often helpful at times to provide for written spelling matches.

### WRITING.

See first grade.

## SEVENTH YEAR.

### LITERATURE.

If not already familiar with the discussion given under the sixth grade the teacher should read it. The suggestions made there are in the main applicable to the work of the seventh grade. The pupil should have a book which will be number two in the series. Although dramatization is usually most used in connection with the lower grades, still there are excellent reasons for its use in the upper ones. It may here be noted that very many of the stories contained in the text for this year would lend themselves very readily to dramatization, which, of course, might be of little more elaborate nature than that usually used in the primary grades. Some of the stories might be worked up into little dramatizations or plays for the exercises on special occasions. The teacher will find many opportunities to correlate this work with their work in literature, spelling, geography and history, and should not neglect any good opportunity to do so.

### AGRICULTURE.

*General Suggestions.*

When considering a course of study for the high schools or the

grades, the problem is fairly definite, but the one-room country school may mean anything from several small children to a roomful of pupils of all ages. The teacher may range all the way from an inexperienced girl to an experienced man or woman with excellent training, but two factors are constant in the country school; first, its surroundings are strictly rural, and second, the teacher has little supervision and what is done or is not done, depends largely upon the personality and initiative of the country teacher.

Here, of all places, is the best opportunity for out of school work, and the teacher is urged to make use of this phase of education. Just as the girls should be lead to connect the life of the home with the work of the school, so should the boys for a definite portion of the time do real things of the farm, with a view to learning the principles involved.

If the teacher is a man and acquainted with the business of farming, let him choose the most practical portion of the course outlined and apply it to local conditions. If it is a corn country, let the boys' club be a corn club, for corn is well suited to the work of boys. Certain small fruits and vegetables are well suited to school children, and small animals like pigs are better than all, because the gains are rapid and certain.

If the teacher is a woman or unacquainted with farming, but interested, let her adopt the attitude of the inquirer and choose those problems and topics that produce their own answers,avoiding those which, like stock-judging, require more technical knowledge.

The work in Elementary Agriculture for the rural schools is most practical when taken up in the seasonal sequence of the operations on the farm. When this method is pursued, illustrative material is easily obtained. The interest of the pupil is at once awakened, and co-operation with the farm activities of the community is natural and inevitable. By this method, Elementary Agriculture in the public schools serves its main purpose, that is in giving acquaintance with and sympathy for, the common things and processes of nature as it touches the daily life of the farm. With this principle in mind, the following tentative course of study is submitted for the seventh and eighth grades of the public schools:

**Autumn.**

*Reports of Vacation Work.*

1. Census of crops produced among the farmers of the community during the summer.

2. Garden or field work done by the pupils during the summer.
3. Census report of the size and equipment of home farms.
4. Keep a monthly calendar of farm operations.

*Insect Studies.*

1. Field collection of the common insects, everywhere present at the season.
2. Classify insects in groups noting the farm crops they attack.
3. Learn common names and prominent characteristics of the orders of insects.
4. Distinguish some friends and foes among insects, and learn some practical methods of combating insect enemies.

*The Wheat Crop.*

1. Preparation of wheat ground, and methods of planting wheat. Fertilizing wheat grounds.
2. Study of wheat seed and the wheat plant.
3. The products of wheat and extent and value of the crop.
4. Varieties best suited to the locality.
5. Insect and fungous enemies of wheat.

*Selecting and Storing Corn.*

1. Field selection of seed corn.
2. Judging and scoring corn.
3. Methods of storing seed corn.
4. Corn contests and corn days at school.
5. Importance and value of the corn crop.

*Autumn Fruit Studies.*

1. Studies of types of fruit.
2. Selecting and planting young fruit trees.
3. Report of home orchards and their yields.
4. Storing the fruit on the farm.
5. Judging and scoring apples.

*Elementary Studies of the Stock on the Farm.*

1. Types and breeds of cattle, horses, sheep,hogs and poultry.
2. Feeding and care of each kind of farm animal. Winter protection of live-stock.
3. Determining rations for farm animals.

4. Animal products, milk, butter, cheese, wool, meat, eggs, etc.
5. The use of the Babcock Test for milk.
6. Reports of farm animals on home farm.

**Winter.**

*Farm Accounts and Records.*

1. Farm accounts and records with bookkeeping.
2. Records of crop rotations.
3. Farm taxes, insurance, and general business management.
4. Make daily weather records in neat permanent form.
5. Simple studies in farm machinery.
6. Country life interests, the rural free mail delivery, parcels post, the grange and other agricultural societies, the farmers' reading, home conveniences, the country school, church, store, roads, etc.

*Elementary Soil Studies.*

1. How soil is formed.
2. Kinds of soil.
3. Relations of soil to water and to plants.
4. Some methods of improving the soil.
5. Manures and fertilizers.
6. Drainage, and its values.
7. Use of legumes and crop rotation.
8. Reports of soil on the home farms.
9. Plowing hillsides.
10. How to care for pasture lands.

*Farm Forestry.*

1. Extent and importance of our forests.
2. Influence on industries, soil and water supply.
3. The farmer's woodlot. Its use and importance.

Caring for the woodlot. Planting trees and cultivating them as a crop.

**Spring.**

*Seeds and Seedlings.*

1. Study of the structure of various large seeds.
2. Germination of seeds and growth of seedlings.
3. Testing seed corn, and clover seed.

4. Simple life relations of soil, water, air, and light to the growing plants.
5. Practical exercises in growing plants.

*Orchard and Garden.*

1. Pruning, spraying and grafting fruit trees.
2. Methods of plant propagation.
3. School and home gardening. Make plans. Keep summer records. Report in fall.
4. Beautifying home and school grounds.
5. Cultivation and tillage of orchard, field and garden crops.
6. Pastures and meadows.
7. Weeds, identification of their injury and control.
8. Beneficial value of buds.

NOTE:

In all these topics suggested, it is assumed that the teacher will use both text-books and practical exercises as a method of procedure. About one half of the work should be text-book recitations and one half field and laboratory work.

The work of this course is outlined for one year in the rural schools, either for the seventh or eighth grades. It frequently happens that country school pupils of these grades return for two or three years to do the same work. The College of Agriculture, noting this fact, will undertake to issue bulletins each month of the school year, supplementing the work of the adopted course, giving new matter for such pupils who return to do the year of Agriculture again, and suggestions to the teachers in making the course helpful to all the pupils.

**Special Devices for Agriculture in the Country School.**

Aside from the detailed course given above, the following exercises are especially adapted to the country school and should be worked in wherever the occasion affords:

(1). Formation of local agricultural clubs among the pupils.
(2). Raising ½ acre of corn in competition for prizes.
(3). Exhibiting best ten ears from corn raised by the pupils, at the County Corn Show.
(4). Exercises in judging corn by the score card.
(5). Planting best ten ears in ten separate rows and comparing the yields.
(6). Making a labeled collection of weed seeds and insects.

(7). Examining grass seed with low power glass for weed seed and other appurtenants.

(8). Testing the germinating power of grain.

(9). Testing milk with the Babcock Test.

(10). Feeding a small pen of pigs and keeping weights of corn consumed.

(11). Testing soil with litmus paper for acidity.

(12). Examining roots for tubercles and making a list of leguminous plants.

(13). Testing from moisture in the time of droughts.

(14). Comparing soil of whole cultivated field with that of one neglected.

(15). Planting potatoes, whole, half and single eyes.

(16). Treating oats for smut.

(17). Treating potatoes for scab.

(18). Splicing and tying knots in ropes.

(19). Making a list of crop acreage and yield in the different farms of the community.

(20). Keeping a weather chart.

(21). Keeping account of some part of the farm home.

(22). Excursions to neighboring farms to see successful features.

(23). Noting dates of planting and harvesting of the different crops of the community.

(24). Identifying the different breeds of live stock kept in the neighborhood and describing their difference.

(25). Taking at least one agriculture paper in the school.

(26). Securing the bulletin from the State Agricultural College.

(27). Beginning a small country life library.

(The above suggestions are from The Illinois State Course of Study.)

## ARITHMETIC.

Chapters eight, nine and ten of part two of the text, introduce the fundamental processes and decimals in a larger way than previously, and longitude and time is taken up; these chapters are completed in the first half of this grade.

In the second semester the equation, ratio and proportion, larger applications of percentage, taxes, interest and banking and partial payments are taught; this completes chapters eleven, twelve and thirteen of part two.

## BOOKKEEPING.

In connection with the work in arithmetic for this grade the class should be carefully drilled in the matter of all business forms, such as checks, notes, due-bills, drafts, statements, etc., as are mentioned in connection with the arithmetic processes and compilation that constitute the work of the year. For instance no class should study interest without a careful drill upon the different forms of promissory notes. It is perhaps better to secure the ordinary commercial blank forms for these, a few of which a teacher can readily get from any bank and later on the child should be required to make out notes written out entirely by him on blank paper. The use of the blank would result in a good form being fixed in his mind more readily than will follow the child's writing them out entirely at first. Actual notes that have gone through the bank or which have been handled in actual life will likely carry with them the element of reality in a way to make a stronger appeal to the child's interest than will the "make believe" notes of the school-house. Therefore, if the teacher can secure these it will be an excellent thing for her to use these as the basis of some work. In all the commercial business papers mentioned above the child should fix in mind the number of especial particulars. For instance with regard to a check the especial particulars, if a printed blank is used, are the date, the name of the person to whom it is payable, the amount in figures, the amount in words, the signature and if desired the purpose for which issued, thus five or six in all. This should be emphasized to the child so that he will never write, receive or even see a check that he does not mentally note the presence of all these particulars.

A great deal of work in making out statements, writing business forms, etc., can be done in this grade in connection with the arithmetic in a way that will not only add interest and vitality to the arithmetic instruction, but will also save a great deal of time for the course in the text-book in Bookkeeping the following year.

## LANGUAGE AND GRAMMAR.

The year's work should begin with some review of the last year's work, possibly one month or six weeks being given to this purpose. The book should be completed to Part 3.

### *Composition.*

Much that has been said, relative to the principles and methods

to be followed in teaching the work of the 4th, 5th and 6th grades, will also apply to that of the 7th. It is believed by many, that instruction in English is the most difficult and the least successful of any of the branches taught in the public schools; and therefore, only by very great care and diligence, and especially by careful planning of her work in the subject, will the teacher be successful.

There are many fine grammatical distinctions that present great difficulty of understanding, even to mature students of the subject. Some of these it is unwise to expect the pupil of this grade to see. Still the child, who is carefully instructed and trained, need have but little difficulty in understanding the proper use of the language even as regards points where some of the greatest grammatical controversies arise; and this, after all, is the end towards which the teacher should work. The teacher, therefore, would do well not to bewilder the child by discussions of the points of syntax, presented by their use in some of the usages, for instance, of infinitives and participles. If the child when he uses them, knows how to combine these forms according to the usages found in good literature, that is sufficient, and that, with proper instruction, he can learn to do.

## GEOGRAPHY.

During this year the second survey of Europe and North America is completed. The important countries in each of the continents are taken up with special reference to their great industries and the physical and social conditions influencing them. Notice should be taken of the commercial relations existing between the home countries and their several colonies. It is advisable to study Europe first, and to follow with North America, with special emphasis upon the United States and West Virginia.

The outlines below are suggestive, but the teacher is to emphasize the topics from VII-XV rather than those from I-VI.

I. Position:
   (1). Relative.
   (2). Absolute.

II. Form:
   (1). Relative.
   (2). Actual.
      (a). As shown by map.
      (b). Indentations.
      (c). Prolongations.
   (3). Continental shelf.

III. Size.
  (1). Relative.
    (a). Compared with other continents.
    (b). In relation to oceans.
    (c). What part of the whole earth.
  (2). Actual.
    (a). Extreme breadth and length of time it takes to make the journey.
    (b). Number of square miles.

IV. Relief (data secured largely from map.)
  (1). Highlands including plateaus.
    (a). Position.
    (b). Extent.
    (c). Elevation.
    (d). General character.
      Broken with numerous passes, or
      Continuous, with few peaks or passes.
      Structure, mountain folds, or blocks,
      Chief passes.
    (e). Arrangement:
      Parallel ranges.
      Cross ranges.
  (2). Relations of the highlands to the great continental slopes, great drainage systems, interior basins and the nature of coast lines.
  (3). Lowlands.
    (a). Position.
    (b). Extent.
    (c). Structure.
    (d). Kinds:
      Rolling plains.
      Coast plains.
      Flood plains.
      Delta plains.

V. Climate:
  1. As indicated by angle of suns rays or latitude.
  2. As modified by elevation.
  3. As influenced by winds from ocean.
  4. As shown by isothermal map.

VI. Rainfall:
  1. Region of moderate and heavy rainfall.

2. Influence of highlands upon winds and rainfall.
3. Location of rainless areas and reason therefor.

VII. Drainage:
(1). Chief rivers and their relation to the land forms which they have been instrumental in creating.
(2). Lakes:
(a). Fresh water lakes.
(b). Salt water lakes.

VIII. Soil:
1. That which has been formed in place.
2. That which has been transported.

IX. Zones of vegetation, as dependent upon
1. Temperature, as determined by latitude, altitude, proximity to water, and influence of ocean currents.
2. Rainfall.
3. Character of the soil.

X. Zones of waste, as dependent upon
1. Lack of moisture.
2. Altitude.
3. Latitude.
4. Too much moisture.
(a). Swamp.
(b) Jungle.
(c). Bad lands.
5. Poor soil.

XI. Distribution of animal life.

XII. Distribution of mineral resources.

XIII. Distribution of population, as dependent upon possibilities of occupation, resources, supply and demand and commercial advantages.

XIV. Development and location of centers of population as showing the needs of the people for commercial centers, manufacturing centers, and government centers.

XV. Development of commercial and trade routes, resulting from the effort to obtain the products and the patronage of the other people of the world.

Harbors.
River systems.
Railways.

XVI. Political divisions and government.

The work of the seventh year includes Europe, North America, the United States and West Virginia.

The study of the advanced text book should be begun in the sixth grade and continued through the seventh.

Special topics suitable for development and comparison with like conditions in other lands. These topics should lead to general truths. They will furnish material for reviews of other places on the globe. They should be studied in connection with the geography of the United States.

*I. Northeastern section and north central section.*

1. In a cotton factory at Lowell, Mass.
2. The arsenal and gun factory at Springfield.
3. The Woolen factories at Fall River.
4. Watches and watch makers at Waltham.
5. In a shoe factory at Lynn.
6. The granite quarries of New Hampshire.
7. Among the light houses along the coast.
8. New York harbor and Ellis Island; landing of immigrants.
9. Garden farming in New Jersey.
10. In a West Virginia coal mine.
11. A blast furnace at Pittsburg.
12. The oil fields of West Virginia.
13. The peach orchards of West Virginia, Maryland and Delaware.
14. The oyster beds of the Chesapeake.
15. Tobacco culture of Virginia and Kentucky.
16. The hard and soft woods of West Virginia.
17. The prairies of Illinois.
18. Chicago as a trade center. (McMurry, pp. 63-73.)
19. Pineries of Michigan. (McMurry, pp. 73-85.)
20. Copper mines of Michigan and lead mines of Wisconsin.
21. The wheat fields of Minnesota and the Dakotas.
22. The flouring mills of Minneapolis.
23. The corn and live stock of Indiana.

*II. Southern Section.*

1. The rice fields of the Carolinas.
2. Semi-tropical fruits of Florida.
3. Cotton culture in Georgia and Mississippi.
4. The Levee at New Orleans.
5. A sugar plantation in Louisiana.

6. A cattle ranch in Texas.

*III. Plateau Section.*

1. Farming by irrigation.
2. A mining camp in Colorado.
3. Gold and silver smelting at Denver.
4. A trip to Yellowstone Park.
5. Fruits and flowers of California.
6. Salmon fishing on the Columbia river.

Encourage home reading. The school library should have a number of supplementary readers, geographies and aids to the study of this subject.

Books suitable for the use of students:

Brigham.—From Trail to Railway.
Carpenter.—Europe.
Carpenter.—How the World is Fed.
Carpenter.—How the World is Clothed.
Chamberlain.—How We are Clothed.
Chamberlain.—How We are Sheltered.
Roscheleau.—Great American Industries.

Books for the teacher.

McMurry.—Special Method in Geography.
Mill.—Choice of Geographic Books for Reference.
Nichols.—Topics in Geography.

Geographic Journals.

The Journal of Geography.
The Bulletin of the American Geographical Society.
The National Geographic Magazine.

## HISTORY.

### *First Half Year.*

Text-book.—Montgomery's Beginner's American History. Note that the story of our country is presented in this book by giving the biographies of many of the prominent men of our country. The story element predominates over the cause and effect idea of history. The principal facts in the history of a colony, or of a period, are grouped about the life of some prominent man of the time. Have pupils note the strong traits of character in each of these men, and tell why each was selected. Take the book as it is and do not try to supplement it too much except by material of the same kind.

Train in topical recitation so that pupils will acquire good oral expression. Have some of the stories reproduced in writing. Teach time, place and reason for some of the famous sayings quoted. Keep main incidents of lives of different men before the class by frequent reviews. Fix definitely in mind a dozen or so of the more important dates. Be sure that pupils get the meaning of all new expressions. Make use of summaries at ends of chapters. This half year is the introduction to the more serious work of the advanced book. Create keen interest. Get pupils to read other books on history.

*Second Half Year.*

Text-book—Leading Facts of American History to Chapter IV.

This part of the book covers the story of the discovery of America, its explorations, settlement and growth of the colonies up to the close of the French and Indian War, together with some account of the Indians, their manner of life and degree of civilization.

Study the discoveries. Show conditions in Europe leading to the voyage of Columbus. Find out something about Venice and Genoa, Ferdinand and Isabella, Marco Polo, Prince Henry the Navigator, and Galileo. Procure copies of maps of that day and show ideas of the form and size of the earth. Use globe in tracing route of Columbus and other explorers.

Study claims of different nations to parts of the new continent. Trace voyages and discoveries on which these claims were founded. Give special attention to Spanish, French and English claims. Study work of at least three explorers of each of these nations. Effect upon Europe of the discovery of America.

The Indians, their attitude toward the white men, their tribes, customs, homes, utensils, food, clothing, weapons, languages, religion and ideas of property. What the white man learned from them and what they learned from the white man.

The Colonies. Study the main events in the history of each. Take Virginia, Massachusetts, New York and Pennsylvania as types, tracing their development quite fully the others can then be dismissed very briefly. Compare colonies settled by different nations with each other.

Compare Virginia and Massachusetts as to size, religious affairs, types of government, character of colonists, soil and products, etc. These are two typical English colonies and especially important.

The different modes of governing the colonies at different times,

the introduction of slavery, the representative assembly, Bacon's rebellion, the relations of the colonies to each other, and to the mother country. Show some reasons that tended to keep the colonies apart, others that tended to unite them. Point out the relation of the English Colonies to the French on one side and to the Spanish on the other.

Take up more fully the claims of France to the Mississippi Valley. Conflict of claims between French and English together with wars resulting from them. Show that these wars were not particularly American but the American side of contests between these two countries in Europe and elsewhere. Study the French and Indian War more intensively because it was the final contest and because of the effects which it had on the development of the English colonies.

Call attention to the internal growth of the colonies during this time, their increase in population, in property and wealth, the beginning of commerce, show also the hardships of pioneer life, the homes of the people, education, books and papers, methods of travel, sending of mail, growth of towns and cities, dress, food, social life and customs and religious practices.

During this period, as indeed in all times, the social affairs of the people are of as great importance as the political affairs. Do not over emphasize the details of war, but lay more stress on the victories of peace.

### SPELLING.

See suggestions under sixth grade.

### WRITING.

See former grade.

## EIGHTH YEAR.

### LITERATURE.

Books three and four should be completed during the eighth grade. It is very probable that in many instances pupils might not be able to buy the two books during the year, and it is therefore suggested that the teacher make some arrangement of the year's work to meet this situation if it arises. For instance, the teacher might have the pupils complete the first book and do the rest of the work with her own text-book, reading aloud to the class and allowing the members of the class to read to each other, or it might

be possible that the class might buy two or three copies by general subscriptions with the understanding that they should be left in the school library at the end of the school year, or some small part of the library fund might be used for the purchase of these books which could be used in succeeding years. Very few of the books that are put into the school libraries have greater merit for such a purpose than have these. During this year especially it is suggested that the material in the literature books be used as a basis for the composition work, which is a part of the work in literature for this grade.

### AGRICULTURE.

See suggestions under seventh grade.

### ARITHMETIC.

Many business applications and transactions are introduced in this grade; insurance, stocks and bonds, powers and roots, various process and applications of measuring are presented and given thorough consideration. In the first half of the year the text is completed to about page 408.

After a thorough general review of the topics presented the preceding half year, the text deals with the Metric System, foreign moneys, and introduces a few principles of Algebra. This semester completes the book, taking pages 409 to 454, inclusive.

### BOOKKEEPING.

The work this year should follow the adopted text. Pupils should have a great deal of practice and drill in all the practical and useful phases of the subject; for instance, in the rural schools the boys should be encouraged to keep accounts of some fields of corn or potatoes exactly as the events and facts in the case exist, so as to show the net loss or gain. The moral value of this subject, while not often referred to, is, in fact, very high. Any person who acquires a familiarity with a good, simple system of keeping accounts and will by practice form the habit of keeping his own personal accounts, is taking his first step towards the habit of thrift, which will reinforce and strengthen many other good habits and is the constant foe to many bad ones. Above all things, however, it should be remembered that bookkeeping merely as subject matter known, has very little value. Its value far more than other subjects lies in some application of it, and since human nature is such that one does more readily things that are easy for one to do, the

teacher should bear in mind that the final value of instruction in this subject depends largely upon enough drill to give the pupil a high degree of skill and readiness in the application of the principles of the subject.

## LANGUAGE AND GRAMMAR.

The third part of book two of the Modern English is devoted to a few lessons on composition. The subject is, of course, treated in a very simple and elementary way, but the matter given can be made the basis of some very profitable instruction to the class. It is suggested that the first three months or so of the year be given to a course in composition along the line given by the text-book.

The aim of most of the instruction in this subject up to this time has been to secure skill and proficiency, for the most part in written language, with a certain amount of instruction in Grammar itself, partly incidental and partly as the basis for the language work.

Three months instruction in composition given in the first part of this year should give the teacher an excellent test of the success of the previous several years' work in English and would suggest what reviews and supplementary instruction in Literature and Grammar may be most profitably given during the remainder of the year. It is thought that this plan will be a better one than to begin the year by a review of the preceding parts of the course and to devote the last part of the year to the composition work.

In cases where the natural capacity of the pupils and the excellence of previous instruction have resulted in a sufficient knowledge of the literary and grammatical principles given in the text-books and in a satisfactory proficiency in the application of these principles, it would be well to give the class a little more comprehensive and exhaustive drill upon Grammar or upon Composition or both, based upon other text-books which go more fully into the principles of these subjects.

In addition to the subject material for composition work given in the third part of book two, the teacher might well do quite a little of this kind of work in connection with the work in literature, which is elsewhere provided for in the course of study. The literary selections given in the literature texts adopted are of high literary merit, many of them being masterpieces of English literature. It is generally recognized that composition work, based upon literature of this quality, has a double value. It not only, by the nature of the subject matter, tends to make the work in composi-

tion itself more profitable, but also the composition work, if rightly done, tends to strengthen the impressions of the literature upon the child's mind and to give him a better perception of its literary merit.

## HISTORY.

First half:—From the beginning of the Revolution to the Civil War. Review conditions of colonies at the close of the French and Indian War as to their strength, their wealth, their military knowledge and skill. Trace the causes of disagreement with the mother country; the steps leading up to Revolution; the Continental Congress; the Declaration of Independence; the campaigns and incidents of the Revolution; the Articles of Conferation; the critical period from 1781 to 1789; formation of the Constitution; the establishment of our national government, its foreign and domestic policies, tariff, money, mint, treaties, etc.; the formation of political parties; the events leading up to the War of 1812, events and results of that war; theories of internal improvements,—the Erie Canal and the National Road; the United States banks; public lands; settlement of the Western country; the growth of the nation and the extension of territory beginning with the purchase of Louisiana, of Florida, the annexation of Texas, the cession at the close of the Mexican war, the acquisition of Oregon, the Gadsden purchase; the rise of the slavery question; nullification; state banks and money; the War with Mexico, and inventions and discoveries of the period.

During the latter part of the period attention will naturally center upon the increasing bitterness between the North and South over slavery, the fugitive slave laws, the Civil War in Kansas; the Kansas-Nebraska Act; the Dred Scott Decision, the Lincoln-Douglas debates; John Brown's raid; the presidential election of 1860, leading up to the secession of the Southern States and the outbreak of the Civil War.

Some attention ought to be paid to the development of literature, especially by the New England writers.

Second half year.—From the beginning of the Civil War to the present. Review briefly the course of events leading up to the Civil War. Compare the strength of the two sections as to population, wealth, natural resources, military training, strategic positions. Show attitude of the border states, plans of campaign, lines of attack and defense, and blockade of the Southern ports. Trace various campaigns noting principal leaders and successes of either

side; trace the progress of the war on the sea; the final great campaigns; the outcome of the struggle; situation in the North, situation in the South. Note the losses of life and property of the war and its cost. Show the condition of the freed negroes. Call attention to the plans of reconstruction proposed, the readmission of the seceded states, the amendments to the Constitution, and the end of the reconstruction period.

Following the close of the Civil War is the period of national development. It is charactized by great expansion in industrial agencies, manufactures and commerce. The period is a very complex one, and perhaps the most difficult of all to teach satisfactorily. There is a great deal of legislation. The main topics for special attention are the laws regarding money and banking; the successive tariff enactments; the relations of labor and capital; the growth of corporations and trusts on the one hand and of labor organizations on the other, strikes, boycotts, lockouts, etc.; great increase in manufactures; industrial expositions; occupancy of public lands; organization and admission of new states; rise of the doctrine of conservation of natural resources; irrigation of arid lands; establishment of forest reserves and reservation of water power sites; the Spanish-American War and the new position of the United States among the nations of the world as a result of it. These are some of the subjects which must be treated.

Teachers will doubtless find it an aid in presenting the work in history to divide it into periods which can be characterized by some general statement. Consult the Table of Contents as to what these divisions are in the text used. The following divisions taken from Adams & Trent's History of the United States may also be helpful:

1492 to 1765.—Discovery and Settlement.
1765 to 1789.—Revolution.
1789 to 1825.—Organization of Political Parties.
1825 to 1850.—Spread of Democracy and Extension of Territory.
1850 to 1861.—Eve of the Civil War.
1861 to 1869.—Civil War and Reconstruction.
1869 to —— Period of National Development.

*Books Suitable for School Libraries.*

McMurry.—Pioneers of the Mississippi Valley.—The Macmillan Company.

Catherwood.—Heroes of the Middle West.—Ginn & Company.

Eggleston.—Stories of American Life and Adventure.—American Book Company.

Andrews.—Ten Boys on the Road from Long Ago.—Ginn & Co.

Fiske.—The War of Independence.—Houghton Mifflin Company.

Elson.—Side Lights on American History.—The Macmillan Co.

Guerber.—Story of the Great Republic.—American Book Co.

Franklin.—Autobiography.—Houghton Mifflin Company.

Hart.—Camps and Firesides of the Revolution.—The Macmillan Company.

Judson.—The Growth of the American Nation.—The Macmillan Company.

Coffin.—Boys of '76.—Harper Brothers.

Coffin.—Boys of '61.—Harper Brothers.

Caldwell.—American History Studies.—Ainsworth & Company.

Fiske-Irving.—Washington and His Country.—Ginn & Company.

*Books on American History.*

For teachers who have the time and inclination to read more widely in the literature of American History the following volumes will be of interest:

Parkman.—Particularly, The Pioneers of New France; The Jesuits in North America; La Salle and the Discoveries of the West; and a Half Century of Conflict.—Little Brown & Co.

Fiske.—Discovery of America; The Beginnings of New England; Old Virginia and Her Neighbors; The Critical Period of American History.—Houghton Mifflin Company.

Lodge.—Short History of the English Colonies in America.—Harper Brothers.

The American History Series.—The Colonial Era; The French War and the Revolution; The Making of the Nation; The Middle Period; The Civil War and Constitution; Reconstruction and the Constitution.—Chas. Scribner's Sons.

McMaster.—History of the People of the United States. (7 Vols.) D. Appleton & Company.

Rhodes.—History of the United States, (7 vols.). Vols. I-IV The Macmillan Company. V-VII, Harper Bros.

Schouler.—History of the United States. (6 vols.) Dodd, Mead & Co.

The American Statesman Series: particuarly the volumes on Alexander Hamilton; Thomas Jefferson; James Madison; Albert

Gallatin; Daniel Webster; Henry Clay and Abraham Lincoln.—Houghton Mifflin Company.

Andrews.—The United States in Our Own Times.—Scribner's.

Hart.—Source Book of American History.—The Macmillan Co.

Sparks.—Expansion of the American People.—Scott, Foresman & Company.

Roosevelt.—Winning of the West.—Putnam.

Coneau.—Industrial History of the United States.—The Macmillan Co.

Brigham.—Geographical Influences in American History.—Ginn & Co.

Channing.—Student's History of the United States.—The Macmillan Co.

Jackson.—A Century of Dishonor.—Roberts Bros.

## GENERAL HISTORY.

(If general history is attempted in this grade, the course in United States history should be begun in the sixth grade and completed in the seventh, the manner of presenting it being simplified because of the younger age of the pupils.)

It will be best in general to follow the order of subjects as presented in the text used. The same general suggestions as to the subjects to be emphasized in the study of U. S. History will apply in this work. Also the suggestions as to the teaching of the history in the high school course. Social, industrial and economic conditions are as important as the progress in forms of government and the methods of warfare.

The manner of life of the people, their homes, dress, social diversions and amusements, family life, education, literature, art, religious beliefs and observances, agriculture, ownership of land, agriculture products, slavery, position of women, manufactures and commerce, all these topics will be found very fruitful and will well repay investigation.

Pupils should outline lessons and recite in the main by topics. Notebooks may be kept in which material gathered from other sources should be entered; maps should be studied carefully and important events fixed definitely both in place and time. Study the illustrations in the book, they are meant to aid in the understanding of the text.

Compare one nation with another as to its development in civilization and note the constant progress of civilization toward a higher

state. Trace the elements of our own civilization which have come to us from the various nations of the past. Show in what way the present is better than the past and what we may learn from the past of value to the present.

## CIVIL GOVERNMENT.

The aims in teaching civil government should be (1) to acquaint the pupil with the general principles of our government in order that he may be an intelligent citizen; (2) that he may understand what his rights are and the duties and responsibilities that rest upon him as a citizen; (3) to develop a high ideal of citizenship in order that he may serve his community well either in a public position, or as a private citizen; (4) to inspire a desire for a clean, honest and just administration of government so that the equality of all citizens in their legal and political rights may be maintained; (5) to show the value of civil and political rights by tracing the long and tedious way by which they have been secured. The history of civil liberty is centuries long and its course is stained by the blood of many patriots and martyrs. We ought not too lightly to esteem what they have bequeathed to us.

These aims are stated in very general terms but they should be presented to the pupils in very concrete forms.

The main emphasis in the study of civil government in the elementary schools should be upon local government and local conditions. The text-book adopted (Peterman's Elements of Civil Government) begins with the family as "the first form of government with which the child comes in contact." Then follow successively the school, the civil district, the county, the State, and the United States. This order of topics follows the principle of beginning with that which is nearest at hand and most within the pupil's experience, and proceeding to that which is more remote and less known.

In accordance with this principle, after completing the first six chapters, classes may turn to the supplement and take up the study of the civil government of West Virginia. This will give a concrete example of one state government, after which the study of the state in general (Chapts. VII-X) will be comparatively easy. This method will make possible, too, many comparisons between our own state and others.

In studying the government of West Virginia, pupils should read and study the state constitution. It is the source of all the general

powers of the state, and pupils should verify statements of the text by referring to the proper section of the constitution. The same suggestion should be followed when taking up the national government in chapter eleven.

History and civil government should be correlated. The two subjects reinforce each other. Pupils should also pay attention to current events as they can gain considerable insight into the workings of government by noting what is taking place day to day in making laws and in administering them, in interpreting them in the courts, or applying them to the affairs of the nation or state.

Teachers should emphasize the matters of local government as much as possible. If there is not time enough to teach all that is indicated, it will be better to omit some of the details of the national government. As thorough a study as possible should be made of the civil district and the county. In incorporated villages, towns, or cities, the departments of the municipal government should be presented and studied.

Make the subject as practical as possible. Deal especially with the duties of the individual citizen. Emphasize the importance of each man's right to vote, and that each man's share of responsibility is either for good government or for bad. Show that each man is particularly interested in that form of government which comes nearest to him, that is, the town, district, or county.

Point out the interest of each citizen in good roads; sanitary homes; the conveniences of telephones; rural mail delivery; the suppression of contagious diseases; the prevention of malaria, typhoid fever and small-pox; what to do for tuberculosis; the conservation of the natural resources of the state in soil, timber and mineral wealth; why he should support the school and the church; his relations to his neighbors, and the need for co-operating with his neighbors to make the community not only safe for life and property, but a desirable one to live in because of its conveniences and its character. These things are really more important than many matters of detail of either the state or national government.

The work of the year may be divided by terms somewhat as follows:

*First term.* Chapters I-VI, and The History and Government of West Virginia, pp. 225-276 inclusive.

*Second term.* Chapters VII-XIII, with careful study of those sections of the U. S. Constitution as bear upon the subjects treated.

*Third term.* Chapters XIV-XXII, with sections of the U. S. Constitution.

## STATE HISTORY.

It will be found rather difficult to make a separate study of the history of the state. Much of it will be gained in the study of the state geography, and of its civil government. If there are one or two of the leading state histories in the school library they may be assigned to pupils of the eighth grade for home reading. If there is not sufficient time for reading the whole book, special parts of it may be assigned for reading and report to the classes, either with the class in U. S. History, or with the class in civil government. Or the teacher may present the main points either in reading to the class or in talks.

Reference books in civil government:

Paul S. Reinsch.—The Young Citizen Reader.—Benj. H. Sanborn Co.

Arthur William Dunn.—The Community and the Citizen.—D. C. Heath & Co.

S. E. Forman.—Essentials in Civil Government.—American Book Co.

Francis Gulick Jewett.—Town and City.—Ginn & Company.

John Fiske.—Civil Government in the U. S.—Houghton Mifflin & Co.

W. W. Willoughby.—Rights and Duties of American Citizenship.—American Book Co.

R. L. Ashley.—American Government.—The Macmillan Co.

W. H. Allen.—Civics and Health.—Ginn & Company.

For other books on this subject see list under High School Civics.

Reference Books in State History:

Virgil A. Lewis.—History and Government of West Virginia, (adopted text).—American Book Company.

Virgil A. Lewis.—History of West Virginia.—Hubbard Bros., Philadelphia, Pa.

Fast & Maxwell.—The History and Government of West Virginia.—Acme Pub. Co., Morgantown.

Granville Davisson Hall.—The Rending of Virginia.—Mayer & Miller, Chicago.

## PHYSIOLOGY AND HYGIENE.

Five times a week. The Human Physiology should be completed. Topics that are already understood from the lessons of the two Primers should be given less time, otherwise the book can not be

completed. A fairly strong drill on anatomy and physiology, as given in the text-book, should be required. It is very desirable that the teacher should be familiar with some more comprehensive texts on the subject.

Pupils from the seventh grade may be allowed to take this work, thus eliminating physiology from this grade every other year.

### SPELLING.

The completion of the text-book in the seventh year should not suggest that spelling should be dropped from the course of study. On the other hand the teacher should be certain that every eighth grade pupil can spell accurately most of the practical words in the common school text-books, and most words within the experience of of the eighth grade pupil. Drill upon topical lists of words, word analysis involving Latin andGreek roots, prefixes and suffixes, definition of words, and the proper use of the dictionary.

### WRITING.

See first grade.

### MANUAL TRAINING IN COUNTRY AND VILLAGE SCHOOLS.

Manual training affords opportunity to the school boy to develop the constructive side of his nature. It is natural to want to make things, to do things with the hands. Construction is one of the forms of expression common to all. Its early development and its prominence are seen in the character of the plays of the child. Manual training takes advantage of this instinct of childhood and applies it to problems more advanced than those of childhood's games and plays.

While it is perhaps impossible to undertake any large amount of manual training in village and country schools because of lack of space and equipment, and of preparation by the teacher to give instruction in it, still, some things can be done, and it is the purpose of this paragraph to make some suggestions as to what they are.

The actual necessities for manual training work in the small school are not many. They will depend, of course, upon the number of pupils to be provided for. In a one-room country school, one work bench would perhaps suffice. This can be purchased at a cost of from $8.00 up. This bench may be set up in part of the cloak hall, or in some part of the school room where there is good light, if the space can be spared. If there is a suitable basement

room which can be used it will perhaps be best as it will be easier then to keep the school room clean. A good warm shed or outbuilding might be used.

The following equipment would be sufficient for a great variety of work:

1 work bench with vise
1 24 in., 8 point cross cut saw
1 24 in., 7 point rip saw.
1 brace and ¼ in., ½ in., ¾ in. and 1 in. bits.
1 10 in. Jackson or Diston back saw.
1 sloyd knife.
1 foot rule.
1 2-foot, four-fold rule.
1 set socket firmer chisels, ¼ in., ½ in., ¾ in. and 1 in.
1 spoke shave, Stanley No. 54.
1 Jack plane, Stanley No. 5.
1 8 in. smooth plane Stanley No. 3.
1 Maydole hammer.
1 6 in. try-square.
1 6 in. marking guage.
1 screw driver.
1 combination India oilstone.
1 bench hook.
1 bench brush.

The following *additional* tools will be found useful in some kinds of work where Boards of Education are willing to procure them:

1 set compasses.
1 turning saw.
1 saw set.
1 mallet.
1 nail set.
1 8 in. flat file.
1 half-round wood rasp.
1 set Morse twist drill bits ⅛ in., ⅜ in., and ⅝ in.
1 pair pliers.
1 compass saw.
1 hatchet.
1 countersink.
1 cabinet scraper.
1 3-cornered file.
1 set gouges, ¼ in., ½ in., ¾ in., 1 in.

The cost of this equipment, exclusive of the *additional* list of tools, need not exceed $25.00. The cost may be considerably lessened by getting some local carpenter to make the work bench and set the vise. Perhaps some patron of the school who is interested in manual training would donate the equipment.

One bench and set of tools will be sufficient for five boys working three hours per week each, or for seven boys working two hours per week each. It is understood that this work would be done outside of the regular school day. The hours available are from 8:00 to 9:00 a. m., 12:00 to 1:00 p. m. and 4:00 to 5:00 p. m.

Aside from certain exercise work which should be done at first to familiarize the pupils with the use and care of the tools, the following are suggested as some of the articles which pupils may make.

*Seventh Grade Models:*

Bread board, stirring paddle, butter stirrer, key rack, milking

stool, window stick, coat hanger, whisk broom holder, roller towel rack, bird house, windmill or weather vane, blotter pad, ironing board, shoe blacking cabinet, drawing board and tee-square, hat rack, bread box, pen tray.

*Eighth Grade models.*

Sled, window box, book shelf, book rack, wall brackets and shelf, umbrella rack, sleeve board, tool box, trestle or saw horse, saw buck, wagon jack, single tree, snow plow, chicken coop, egg tester hammer handle, hatchet handle, garden gate.

The material to work with can usually be found at home, or procured from some near by dealer in lumber. When the pupil has determined the article which he intends to make he should select the kind of lumber that he will use and make out a bill specifying the amount and cost of his lumber, nails, screws and finishing. A very careful estimate of the cost of the complete article should first be made.

The actual bench or shop work on any model should be preceded by making a working drawing of it. To do this the pupil must have had some instruction in mechanical drawing, and for that he must depend upon the teacher. Should he not be able to construct the drawing, he should make a detailed written description of the model, noting all of the separate pieces needed for his work and giving exact measurements for each.

The shop work should be accompanied by a study of the different kinds of materials used, where it is obtained, how it is prepared, what are its general uses and why it is particularly fitted for such uses. In this connection make a study of trees—their growth, distribution, classification, characteristics and use.

Definite instruction should also be given in the care and use of tools.

## DOMESTIC ART AND DOMESTIC SCIENCE IN COUNTRY AND VILLAGE SCHOOLS.

What has been said with reference to the possibility of carrying on manual training in the country and village schools will apply as well to the subjects of domestic art and domestic science. The chief difficulties in either case are the necessary space and equipment, even when the teacher is prepared to handle the subjects. But in the hope that among the teachers of the state are some "pioneer

souls who blaze their paths where highways never ran,'' certain suggestions are here offered. The teacher who is prepared for such work and who wants to do it, in either course'' will find a way or make it.''

*Sewing.*

But little equipment is needed for work in sewing. For this reason it can be provided for much easier than cooking. Possibly all that is needed can be brought from home by the girls who are taking the work. If not, it can be procured at very slight cost. This of course refers to hand work. Should the work continue through more than one year and it becomes desirable to use the sewing machine, that part of the work can be done at the home. The instruction as to use and care of the machine should be given in the school.

Each pupil should provide herself with a pin cushion and pins, thimbles, needles, scissors, tape measure and the necessary cloth.

The first lessons should give attention to the correct position of the body, method of holding the cloth, use of the thimble, threading the needle, knotting the thread, holding the scissors, exactness in measuring, etc. This is preliminary work.

The class should take up the different kinds of stitches generally used; such as, basting, back stitching, over casting, hemming, and running. These should first be treated as exercises, but as soon as mastered may be applied in making various articles, as tea towels, dust cloths, aprons, napkins, doll dresses, sewing bags, pin cushions, iron holders.

After these stitches have been learned, pupils should take up continuous seams and apply to useful articles about the home and to some of the simple garments.

This may be followed by exercises on mending, patching, and darning. The home will perhaps furnish all work necessary in any one of these.

Fancy or ornamental stitching may now be taught such as cat stitch, feather stitching and hem stitching. Exercises: table linen, turn-over collars, belts, aprons, etc.

Drafting patterns for wearing apparel, making garments from patterns drafted, or from patterns purchased at the store; as kimono, underwear, corset covers, plain shirt waists.

Button holes, sewing on buttons, hook and eye fastenings, covering buttons, etc.

This work may be extended to cover two years time by increasing the number of articles made under each of the divisions noted above. But it is best not to try too many articles. The aim should be *quality* of work rather than *quantity*. Poor, careless work is of no value.

Additional work in the second year may include instruction on the different kinds of cloths, how they are made, their adaptability to various uses, and the relative cost; how to preserve the color in cloth, dyeing and bleaching; laundering, the kinds of cloth that can be laundered, the effect of soap; hard and soft water for laundry uses; boiling, bluing, starching, ironing; the care of clothing, brushing, pressing, removal of grease spots and stains, packing away clothing for summer or winter and how to protect it against moths and other household pests. Any or all of these may be taken up if time and opportunity permit. Some good manual on sewing will be of great help to the teacher.

### *Cooking.*

When it is possible to do so, sewing should be given in the seventh grade and cooking in the eighth grade.

If a separate room can be had for use it will be best; if not, some cooking may be done by means of a gasoline stove, an oil stove, or on a gas hot-plate. A two burner hot-plate and a small oven or baker will answer most requirements.

A good size store box can be made to serve for a table and by having a shelf or two made in it and a curtain for the front it can be made a cupboard to hold utensils when not in use. This is a rather primitive equipment, but it will serve the purpose if nothing better can be had. Where possible to obtain a separate room for the work it will of course be best to do so. Time outside of regular school hours would best be used for this work.

The necessary utensils are:

1 measuring cup
1 tablespoon
1 paring knife
2 teaspoons
1 case knife
1 stew-pan
1 kettle with lid
1 dish pan
1 rinsing pan
1 strainer
1 plate
1 bowl.
1 skillet
1 granite pan
1 water bucket

| | |
|---|---|
| 1 baking cup | 1 dipping cup |
| 1 wooden spoon | 1 spatula |
| 1 baking pan | 1 pie pan |

tea towels and dish cloths.

These are not expensive, many of them might be contributed by pupils taking the work. If other utensils are needed occasionally they can probably be secured from the homes of some of the pupils.

Work in this department should include a study of the theory of foods as well as the practical work of cooking. The physiology will furnish a classification of foods. Study starches and sugars; fats and oils; animal foods; mineral salts and water.

Pupils should be taught to use the scales in the kitchen, and all groceries and supplies for the home should be checked as to weight. Teach how to care for food and supplies, and how to store foods during the winter season. Some of this work would correlate with the work in agriculture. Have pupils give special attention to the costs of each article used in the course.

*Lessons suggested for one year's course.*

1. Preliminary lessons should include instruction in care of kitchen equipment, arrangement of utensils and tables of measurements used in the work.

2. *Potatoes*—their composition and value as a food; methods of cooking. *Exercise*—baked, creamed or mashed.

3. *Cereals.*—their source and composition; manufacture; varieties and cost; methods of cooking; degree of heat used in cooking with water. *Exercise*—oat-meal, corn-meal, graham mush, cracked wheat, rice. Prepared breakfast foods; their food values; cost; how to serve.

4. *Starch foods*—starches as a source of energy; the effect of heat in cooking; degree of heat to be used. *Exercise*—cornstarch pudding; macaroni; tapioca.

5. *Vegetables containing sugar*—structure and composition; value as food of raw and cooked vegetables; methods of cooking. *Exercise*—cook turnips, cabbage or onions, make vegetable salads, using lettuce, celery and other vegetables. Prepare salad dressing. Make creamed cauliflower or asparagus.

6. *Fruits*—classify; discuss food values; effect of heat and acid; preparation of dried fruits; methods of cooking and serving.

*Exercise*—cook apples or pears; cranberries; and some dried fruits, such as peaches, prunes or dried apples.

7. *Sugars*—kinds, source and manufacture; relation of sugars and starches; value as food; effect of heat and acids of fruits. *Exercise*—cooked fruits containing sugar; make candy; fudge; taffy. A good lesson for the Christmas season.

8. *Eggs*—composition and value as food; effect of heat in cooking; a substitute for meat. *Exercise*—soft and hard cooked eggs; poached eggs and omelet.

9. *Milk*—composition; care; effect of heat; value as food. *Exercise*—use in combination to make soups, custards, dressings, cocoa, etc.

10. *Meat*—Structure and composition; value as a food; kinds of meat; and principal cuts with relative costs; care of meat; effect of heat in cooking. *Exercise*—Broiling; stewing, and baking; make meat soups.

11. *Beans and peas*—composition and food values; methods of cooking. *Exercise*—bake beans, cream peas.

12. *Use of left-overs*—teach how to care for articles left over after meal and how to use them again in preparing other dishes. Review different classes of foods and methods of cooking.

## EXCERPTS FROM THE SCHOOL LAW.

Sec. 79. It shall be the duty of the state superintendent of free schools to prepare and distribute a manual containing the courses of study prescribed by the committee on course of study and such other matter as may seem necessary to enable teachers to carry out the said courses of study, and his further duty to see that the teachers in all the various schools follow the course of study so prescribed; he shall also provide for the examination and graduation of pupils who satisfactorily complete the said course of study, and shall issue diplomas thereto.

Sec. 131. The state board of education shall perform the duties heretofore performed by the state board of examiners as herein provided, and in addition thereto, they shall constitute a committee on course of study and as such committee, shall prescribe a course of study for the public schools of the state, including the district schools, and define the relations that each shall bear to the others.

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